The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 888—Vol. XXII.] LONDON, SATURDAY, AUGUST 28, 1852. [Price 6d.

In consequence of the Royal Decree of 17th July, 1852, O. S., for the fulfilment of the Law 202, of the same date, for the disposal of Naxos Emery:

NOTICE IS HEREBY GIVEN, that a PUBLIC SALE will take place at ATHENS, on the 25th September of this year, in the Square of SAINT 7th October PANTELEIMON, situate in the ROAD ÆOLUS, which will continue from Nine o'clock A.M. until Four P.M., and will comprise the EMERY dug up at the island of NAXOS, during the space of either 10 years, the longest period, or 5 years, the shortest period; the yearly quantity of which (by virtue of the above-mentioned law) will not exceed 40,000 cwts.

The value of the quantity of Emery taken yearly must be paid for in four equal instalments—viz., on 31st March, 30th June, 30th Sept., and the 31st December of each 12th April, 12th July, 12th Oct., 12th January car, except the first year's payment, which is to be made in two equal instalments—viz., one on the 15th / 27th } October, and the other on the 31st December. / 12th January.

A sum of at least 75,000 drachms must be deposited as caution money in the public Treasury, at the interest of 4 per cent. per annum, which sum will be deducted from the final payment at the end of the period for which the contract is made.

The directors of the Public Sale will be the General Secretary of the Government, the Governor of Attica and Bœtia, and the Financial Superintendent (Ephore) of Attica; in case of either of these personages being unable to attend, the head of a section of the Ministry of Finance Office to act for the General Secretary, and a legal assistant for either the Governor or the Ephore.

Those who (in compliance with the rules comprehended in the above-mentioned Royal Decree) wish to be purchasers, must submit their offers sealed, on the day of the public sale, and within the space of the time prefixed.

Offers must contain, both in letters and figures—

1. The price offered for each cwt. of emery.
2. The number of cwts. intended to be taken yearly.
3. The number of years for which the contract is to be made.
4. The guarantee of the bidder.

Tenders must be signed by the bidder and his guarantee, whose names and surnames must appear distinctly written on the top of each tender.

In case two persons make the same offer, in every respect the first presented will have the preference.

Offers not written according to the foregoing instructions will not be accepted.

At the end of the Public Sale, the Directors will, on the same day, submit the result to the Minister of Finance, who will decide, and publish his determination within seven days from the day on which the result of the public sale is submitted to him.

Athens, the 19th / 31st } July, 1852. The MINISTER OF FINANCE. (S.) D. CHRISTIDES.

Further explanations may be obtained at the Greek Consulate-General Offices, 25, Finsbury-circus.

CORNWALL—The TREVANION ESTATES.—TO BE PEREMPTORILY SOLD, BY PUBLIC AUCTION, at Dunn's Hotel, ST. AUSTELL, on Monday, the 11th day of October next (unless previously disposed of by private contract), by JOHN GUMMOE, on behalf of the mortgagees of John Charles Bettesworth Trevanion, Esq., under full powers of sale, the valuable FREEHOLD ESTATES, NOBLE MANSION, productive CHINA CLAY WORKS, COMMONS, including MINERALS and MANORIAL RIGHTS in the several manors of CABHAIS, TREBURTHES, GROGOTH, TOLGARRICK, and TREVERBYN TREVANION, comprising a vast extent of country in the several parishes of St. Michael Carhais, Gorran, St. Ewe, Ruanlanihorne, Cuby, Cornelly, St. Austell, St. Stephens, St. Dennis, and St. Mewan.

Printed particulars, with plans and conditions of sale, may be had on and after the 1st day of September next, on application to the said Mr. John Gummoe, at St. Austell, aforesaid; to Mr. H. Rhodes, solicitor, 9, Davies-street, Grosvenor-square, London; to Messrs. Harrison, Tennant, and Finch, solicitors, 2, Gray's Inn, London; and at the principal hotels in the neighbourhood of the estates.

CORNWALL.—FOR SALE, BY PRIVATE CONTRACT, the LEASE of a valuable MINERAL PROPERTY, from which £3000 worth of TIN, of the best quality, has been raised above the 30 fm. level (the deepest in the mine), and within a very limited extent. Owing to its being wrought by a few individuals, among whom a dissension arose, the mine was stopped, and the machinery and materials were very recently sold. The erections on the mine are good and extensive, and are all available for future operations, and the shafts, adits, &c., are well secured.

The lords have entered into an agreement to grant a fresh lease of the sett for 21 years, at 1-15th dues. The above presents a rare opportunity to capitalists, £10,000 having been expended in bringing the mine into a profitable state of working, which was then abandoned for the reason above stated.

The terms of possession are merely nominal, and may be known on application to "X. G. Z.," St. Austell.—Dated July 28, 1852.

SPARE MATERIALS FOR SALE AT KILBRICKEN MINE, NEAR CLARE, IRELAND.

TO BE SOLD, BY TENDER, a 20-in. cylinder STEAM-ENGINE (single action), complete, with nozzle, steam and feed pipes, fly-wheel, 14 feet diameter, with crank, shaft, and pinion wheels.

2 8-inch working barrels; 2 8-inch doorpieces; 2 8-inch windbores.
15 9-inch pumps; 12 feet plunger pole, with working barrel.
H-pieces, top-doorpieces, stuffing-box, and windbore, complete.

Terms—Cash on delivery.

TENDERS will be RECEIVED up to Twelve o'clock on Wednesday, the 1st Sept., addressed to Mr. J. H. Smith, 34, Lombard-street, London, of whom further particulars may be had on application; and also of Capt. John Champion, on the mine.

TO IRONMASTERS AND OTHERS.

PARKFIELD IRON-WORKS, NEAR WOLVERHAMPTON.

TO BE SOLD, BY PRIVATE CONTRACT, all the above extensive WORKS AND MINERAL PROPERTY,

Consisting of FOUR BLAST-FURNACES, HOT-AIR OVENS, a pair of very powerful newly-erected BLAST-ENGINES, upon the most modern and approved principle, together with everything complete for carrying on the above works.

The MINERAL PROPERTY consists of ONE HUNDRED ACRES of FREEHOLD LAND, with a good part of the mines ungotten; FIFTY-SEVEN ACRES of LEASEHOLD LAND, 54 years of which remain unexpired, and about 30 acres of the mines are in the whole; also ONE HUNDRED AND TWO ACRES of LEASEHOLD LAND, the leases of which expire at various periods; the mines under the same are now being worked.

The above works are well situated for canal conveyance, and the Stour Valley Railway runs within 500 yards of the furnaces, to which a branch is in contemplation.

Every information can be obtained on application to Mr. John Pugh, at the above-named works.

MOST IMPORTANT TO ENGINEERS, MACHINISTS, &c.

TO BE DISPOSED OF, BY PRIVATE CONTRACT, an ENGINEERING ESTABLISHMENT, one of the largest, and decidedly in the most advantageous situation in the United Kingdom, for engine and iron ship-building.

The works are fitted with all the machinery requisite for the construction of marine engines, up to 500-horse power, requiring very little adaptation and addition to the present arrangements, which have hitherto been applied to locomotive work.

Iron-works, with blast-furnace, are in the immediate vicinity of the engine factory, manufacturing every description of engine forgings, bar and bolt-iron, boiler-plates, &c., which would be supplied at the lowest market value. Wages are moderate, and coals exceedingly cheap.

A gentleman of capital would be treated with, either for the entire concern, or to take a principal share in the working of the business; if the latter, one of the present proprietors would be glad to allow his capital to remain in the concern.

A plan of the works and estate may be seen at the offices of Mr. W. Kirk, 24, Princess-street, Manchester, who is appointed agent for the disposal of the same.

TO BE SOLD, BY PRIVATE CONTRACT, the STRONTIAN LEAD MINES, situated in the county of ARGYLL, SCOTLAND.—The SETTS, or GRANTS, of the above mines, of which there are upwards of 25 years unexpired, subject to 1-12th dues, together with the MACHINERY, consisting of a large water-wheel, applied for pumping and winding the stuff, and other MATERIALS; also RAILROADS, entering the mines at different points, from whence the stuff is brought by horses to the dressing floors.

The present returns are about 50 tons of ore per month, and in all probability may be considerably increased by extending the grand (adit) level, now in progress, which will unwater extensive mines lying to the west. The ore is sold in the Dee, and, as may be seen by reference to the sales, fetches the best price in the market.

The plant further consists of a substantial residence for the manager, with offices, stabling, &c., complete, and 24 good and well-built cottages, requisite for carrying on extensive works.

There is also a large labouring population in the immediate neighbourhood.

Information as to the state of the mines to be obtained from Mr. James Barratt, the agent on the spot; and further particulars from Mr. Barratt, Coniston, near Kendal.

P.S.—This concern is well worthy the attention of capitalists.

TO CAPITALISTS AND OTHERS.

TO BE SOLD, BY PRIVATE CONTRACT, in ANGLESEA, NORTH WALES, a FREEHOLD ESTATE, containing 14 acres and 9 perches, and is situated about a mile to the eastward of Parys Copper Mine, where such princely fortunes have been made, and one of the lodes runs through this estate for about 200 fathoms. About 100 fathoms from this estate (eastward) some mining work has been done, and returns of copper, on the same lode, been made.

For further particulars, and to treat for the same, apply to Mr. John Hughes, Fairview, Holyhead.

MR. JAMES CROFTS, of No. 4, KING-STREET, CHEAPSIDE, MINING BROKER.

Mr. J. CROFTS begs to OFFER his SERVICES for the PURCHASE or SALE of MINING SHARES of every description, and not being a DEALER, transacts business only for principals on commission.

Mr. Crofts' weekly list comprises only such shares as he has actually on hand, or under control, but he may be consulted upon every description of mining shares, whether for purchase or sale.—Dividend Mines pay from 10 to 25 per cent. per annum.

WEEKLY LIST OF SHARES FOR SALE.

Dividend Mines.—Bedford United, Merilyn, Wheal Golden, South Tamar, Alfred Consols, Mary Ann, Cobre, Newtonards (Isle of Man), and Linares.

Progressive Mines.—Tavy Consols, Gawton Consols, Devon Consols North, Wheal Langford, West Wheal Alfred, Wheal Robert, Wheal Surprise, Wheal Victoria, Penhale Consols, Annotto Bay, Trebell Consols, Santiago, Wheal Augusta, Wheal Samson, Wheal Surprise, Wheal Arthur, Lydford Consols, Wood, Devon Burra Burra, Silver Valley, Altarnun Consols, Clive, Bodmin Consols, North Fowey Consols, Wh. Treniar, Okel Tor, Great Bryn Consols, Great Baddern; North Wheal Trelawny.

Mr. Crofts has made arrangements with an eminent firm on the Stock Exchange to BUY or SELL in such SHARES and MINES as are there dealt in, without any addition to the commission charged by Stock Exchange Brokers, and Mr. Crofts also transacts business in all British and Foreign Railways.

*** Mr. Crofts has special reasons for recommending to his friends the shares in the Nouveau Monde and Colonial Gold Companies.—August 27.

ALTARNUN CONSOLS TIN AND COPPER MINES.—Mr. JAMES CROFTS, in referring the Capitalist to the NEW PROSPECTUS of the ABOVE MINE, which presents peculiarly advantageous features, begs to state Mr. Murray's opinion, that the mine, when the shaft is clear of water, will pay its working expenses from the produce of tin from the lode at the 20 fathom level, and that if machinery be immediately purchased, and the mine vigorously prosecuted, dividends may be made at the end of six months. The first proceeds of the sale of the new shares will, therefore, be devoted to the purchase of a steam-engine.

Out of the 2000 shares for sale, nearly 1000 are now subscribed for by most influential parties, and for the remainder an early application is requested.

4, King-street, Cheapside, August 27, 1852.

MR. JAMES CROFTS, considering the late depression in Mining Stock rapidly passing away, advises his friends to take the present opportunity of PURCHASING both DIVIDEND and SPECULATIVE SHARES whilst the rates are still moderate. As a sound principle of action, Mr. Crofts advises purchases in depressed times, and sales when the market is buoyant.

4, King-street, Cheapside, August 27, 1852.

MR. JOSEPH JAMES REYNOLDS, STOCK & SHAREBROKER, 23, THREADNEEDLE-STREET, AND 28, NEW BOND-STREET, Piccadilly,

Mr. REYNOLDS has SHARES FOR SALE in the following MINES:—

Alfred Consols	Gawton United	Treviskey and Barrier
Anglo-Californian	Great Bryn Consols	Trelusbeck
Bell and Lanarth	Mendip Hills	Tywardreath
Black Craig	Molland	Unity Consols
Bodmin Consols	North Tamar	United Mines (Tavisk.)
Brewer	North Levant	United Mines (Gwen.)
Britannia Gold and Copper	North Frances	Venton
Castle Dinas	North Basset	West Wh. Alfred
Carn Brea	North Roskear	West Stray Park
Calstock United	North Wh. Trelawny	West Providence
Cwm Erfin	Peter Tavy and Mary Tavy	Wheal Golden
Chyprase Consols	Pendarves & St. Aubyn	Wheal Tryphena
Clive	South Condurrow	Wheal Samson
Condurrow	Sidney Godolphin	Wheal Margaret
Cook's Kitchen	Spearne Consols	Wheal Maudlin
Carvannal Daren	St. Agnes Beacon	West Beam
Devon Burra Burra	Silver Valley	West Wheal Frances
Devon Consols North	South Wh. Basset	Wheal Tehidy
Duke of Cornwall	South Carn Brea	West Basset [Tawton.
East Wheal Russell	South Wheal Basset	Wheal Fortune (South
East Polgooth	Tincroft	Wheal Gill
Esgair Llee	Tavy Consols	Wheal Langford
Great Wheal Baddern	Trevena	Wheal Robins
		&c. &c.

and in various other mines of a very promising appearance.

Mines inspected by agents of experience and high respectability in any part of the kingdom within the shortest notice.—August 27, 1852.

VALUABLE SLATE QUARRY AND LEAD MINES—PROFITABLE INVESTMENT OF CAPITAL.

TO BE SOLD, BY PRIVATE TREATY, a LEASE of FIVE HUNDRED ACRES of MOUNTAIN LAND, known by the name of TANAMANOD, situated in the parish of FESTINIOG, in MERIONETHSHIRE, adjoining Mr. Casson's well-known quarry. The land is rich in MINERAL ORES, and two capital VEINS of LEAD (with several cross veins) have lately been discovered, from which specimens have been taken.

The SLATE QUARRY (which has been lately opened, and is now ready for working) is free of royalty. A stream of water runs close by it, capable of turning any machinery that may be required.

For terms, and further particulars, apply to Mr. Thomas Heywood, 6, Commercial-buildings, Chester-street, Birkenhead; or to Mr. Heywood, High-street, Wrexham.

TO BE SOLD, BY PRIVATE TREATY, a VALUABLE ESTATE, consisting of 28 acres of land, large measure, or thereabouts, situate in the township of WELCH WHITTLE, parish of STANDISH, county of LANCASTER, now in the occupation of Mr. Henry Glover; and the MINES of COAL lying under the same—viz.: the Cannel Mine, King Coal, Yard Coal, Bone Coal, Smith Coal, and the Main Coal, or Arley Mine; or the MINES of COAL can be PURCHASED, on reasonable terms, without the surface.

Parties desirous of treating may obtain every information on application to Mr. James Whittle, agent and colliery viewer, Hill Cottage, Charnock Richard, near Chorley, Lancashire.

STAFFORDSHIRE—THE PHŒNIX IRON-WORKS.

FOR SALE, all that most desirable and eligibly-situated FREEHOLD IRON-WORKS AND PREMISES,

THE PHŒNIX IRON-WORKS, WEST BROMWICH, in the county of STAFFORD, the MILLS and FORGES of which comprise the following PLANT and MACHINERY, namely:—

An ENGINE, 100-horse power, by Boulton and Watt, in brick engine-house, with two 35-feet boilers, complete, and recently erected, driving a forge.

A 20-inch BOILER PLATE, TRAM, and RAIL MILL, to which are attached one punching and straightening machine, driven by an engine of 10-horse power.

An ENGINE, of 60-horse power, by J. and G. Davis, in brick engine-house, with three 25-feet boilers, driving a forge, an 18-inch boiler-plate and sheet mill, and a 16-inch train for the manufacture of bars, T, and angle-iron. With this work is an engine of 20-horse power, driving an 8-inch merchant tram, saw, and turning lathe, the whole employing 34 puddling and heating furnaces, and being capable of manufacturing from 350 to 400 tons of finished iron per week.

There are also belonging to this work blacksmiths and wheelwrights' shops, stock-taker's, and general offices; together with an ample wharfage of seven boats' length to the Birmingham Canal, and an excellent frontage to the turnpike-road leading from Swan Village, West Bromwich, to Oldbury.

The premises, which are most eligibly situated, occupy about two acres of land; the valuable mines under which (belonging to the property) remain ungotten.

With this lot, will also BE SOLD, the following PROPERTY, held on lease for 21 years, of which 18 are unexpired, consisting of an excellent dwelling-house, with out-buildings and appurtenances, and about four acres of PASTURE LAND; a capital wharf and store-yard adjoining the works; four workmen's COTTAGES, with gardens and other appurtenances thereto belonging; together with a capital eight-quarter MALT-HOUSE, adjoining to the said canal.

To view the property, and for further information, apply to W. Mathews, Esq.; Edgbaston, Birmingham, and Corbyn's Hall Iron-Works, near Dudley; and to J. H. M. Pinniger, Esq., 5, Raymond's-buildings, Gray's Inn, London.

FOR IMMEDIATE SALE, BY PRIVATE CONTRACT, about ONE HUNDRED AND FOURTEEN ACRES of FREEHOLD LANDS, in a ring fence, with FOUR principal SEAMS of ANTHRACITE COALS on them—one of the seams about 6 feet thick, and the others about 4 feet each, and the greatest part may be won and landed on the Llanelly Railway, on payment of 1d. per ton as way leave; also a LARGE QUANTITY of IRONSTONE and ORE—VEIN of BLACK BAND, of 15 inches thick, on the same premises.

A long lease will also be granted to any person of adequate means of several seams of anthracite coals, ironstone, and two veins of black-band on other freehold lands, in the same parish, Bettws, Carmarthenshire.

For further particulars apply to Mr. John Williams, attorney, Carmarthen; or to Messrs. Jeffreys and Co., solicitors, Swansea.

TO CAPITALISTS.—TO BE DISPOSED OF, in North Wales, a BLUE SLATE and SLAB QUARRY, within three miles of a shipping place and five of the Chester and Holyhead line of railway. The Quarry is newly opened, and in full work, making both slates and slabs of all sizes. Any power of water can be had within 10 yards of the quarry; water at all seasons of the year.—Further particulars may be had by applying, either by letter or personally, to James N. Long, Trefriw, Carnarvonshire.

MR. T. P. THOMAS, MINE AGENT, 75, OLD BROAD-STREET, ESTABLISHED NINE YEARS.

Mr. T. P. THOMAS begs to inform capitalists and the public that he is at all times in a position to BUY or SELL, at close market prices, in DIVIDEND and respectably established BRITISH and FOREIGN MINES; and having a local knowledge of the principal Cornish and Welsh Mines, from periodical personal inspection, &c., will be happy to furnish information by post or otherwise.

N.B.—Mines inspected and reports furnished.

MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND-PAYING MINES FOR SALE, and which will give the purchaser 15 to 20 per cent. for the outlay. Amongst others are the following:—

United Mines	Trumpet Consols	East Daren
South Basset	Tremayne	East Wheal Reeth
South Frances	Seton	Copiapo
West Caradon	West Providence	St. John del Rey
North Basset	Botallack Levant	Cobre
Alfred Consols	Bedford United	&c. &c.

And has also FOR SALE SHARES in MINES having a PROMISING APPEARANCE, and affording greater range for speculation, such as—

Imperial Brazilian	East Tamar	Cefn Bruno
Alten	Trefusis	West Towan
Tinroft	West Seton	West Basset
Tamar	Stray Park	Hingston Down

Mining Offices, 33, Clement's-lane, Lombard-street.

TO ENGINEERS AND FOUNDERS.—TENDERS for the CONSTRUCTION and ERECTION of an 80-inch cylinder ENGINE, 12-feet stroke, with THREE BOILERS, of 12 tons each, STEAM CHEST, PIPES, &c., complete, with connection for the first piece of main-rod, on the Cornish principle, to be delivered, erected, and set to work in four months from the time of signing the contract.

For further particulars apply to Mr. Manuel, Secretary of the Great Crinnis Copper Mining Company, 26, Austinfriars, London, to whom all tenders are to be addressed on or before the 14th of September, 1852.

TO PROPRIETORS OF FLOUR MILLS, SAW MILLS, &c.—TO BE SOLD, a capital LEASEHOLD WHARF and PREMISES, situate in the BELVIDERE-ROAD, LAMBETH, with a large STEAM-ENGINE, and all the requisite BUILDINGS, DWELLING-HOUSE, STABLE, &c., for conducting an extensive business.—Applications to be made to Mr. Phipps, Lambeth Water-Works Office, 139, Blackfriars-road.

TO PROPRIETORS OF MINES, WATER-WORKS, &c.—TO BE SOLD, an excellent PUMPING ENGINE, with 64-inch diameter cylinder, 8-feet stroke, in good condition and repair. The engine and pumps having been manufactured in the best manner, well deserve the attention of persons requiring a superior machine.—Applications to be made to Mr. Phipps, Lambeth Water-Works Office, 139, Blackfriars-road.

ADVANTAGEOUS PARTNERSHIP IN THE IRON TRADE.—The Advertiser wishes to meet with a PARTNER, who can advance from £6000 to £8000, to ASSIST in CARRYING OUT more extensively the MANUFACTURE of BAR-IRON. The business has been established for several years, on most eligible premises, adjoining one of the principal railways in Yorkshire, and additional capital is all that is required to render the concern a most lucrative one.

Principals only will be treated with, who must give real name and address, with satisfactory references.—Communications to be directed to "A. B.," care of Charles Bell, Esq., 36, Bedford-row, London.

WANTED,—The Advertiser, who has been for 22 years actively engaged in business (the last 16 of which he has been in his present employ), is desirous of obtaining an APPOINTMENT as CASHIER or ACCOUNTANT in a MERCANTILE, MANUFACTURING, or MINING CONCERN, or as SECRETARY to a PUBLIC COMPANY, or as LAND AGENT, or in any other capacity where integrity, untiring assiduity, and good business habits would be appreciated. Satisfactory reasons will be assigned for wishing to leave his present engagement. Unexceptionable references—security if required.—Apply by letter (pre-paid) to "W. B.," care of Mr. P. M. Evans, stationer, Holywell, North Wales.

WANTED,—A SITUATION as AGENT, at a COLLIERY, by a Person of 20 years' experience in some of the largest collieries in Wales.—The Advertiser fully understands the management both underground and on the surface, and has had great experience in ventilating mines: he is perfectly conversant with surveying and mapping. Can be highly recommended, and would have no objection to go abroad.—Address "X. Y.," Post-office, Flintshire.

WANTED,—A good SECOND-HAND 50-inch cylinder STEAM-PUMPING ENGINE, with or without boilers.—Full particulars, with the lowest price, to be sent to "A. B.," care of Mr. Reynolds, 15, Old Broad-street, City.

N.B.—This advertisement will not appear a second time.

IRON ORE ROYALTY, IN CUMBERLAND.—TO BE LET, the ROYALTY of an extensive and valuable IRON ORE FIELD, in which hematite ore, of superior quality, has been proved by boring, and of which there is every prospect of an extensive deposit. This is an eligible opportunity for ironmasters, as the ore royalties of the district are all engaged.—Apply to "Box, No. 21," Post-office, Whitehaven.—Whitehaven, August 12, 1852.

STEAM-COAL COLLIERY TO BE LET.—outlay of capital moderate.—For particulars, apply to Mr. W. Price Struvé, Swansea, Glamorganshire.

FENTON POTTERY COAL AND IRONSTONE MINING COMPANY.—TO BE SOLD, in this concern, a NUMBER of PAID-UP SHARES, at a discount.—Apply to Mr. Richard Newbold, general agent.

Longton Potteries, August 26, 1852.

BRITANNIA GOLD AND COPPER MINING COMPANY.—Notice is hereby given, that a GENERAL MEETING of the registered proprietors will be HELD on Wednesday, the 1st September, 1852, at the offices of the Company, 5, Barge-yard Chambers, at One o'clock precisely, to receive a Report from the Committee of Management, and for general business. By order,

ROBT. J. BISDEE, Secretary and Purser.

5, Barge-yard Chambers, Bucklersbury, August 23, 1852.

LINARES LEAD MINING COMPANY.—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders will be HELD at the Company's offices, in New Broad-street, on Tuesday, the 7th September, at One o'clock precisely, for the general business of the Company, in accordance with the Deed of Registration. By order of the board, G. EATON, Secretary.

2, New Broad-street, August 20, 1852.

N.B.—The accounts and balance-sheet will be at the office for inspection of the shareholders until the day of the meeting.

THE AUSTRALIAN MINING COMPANY.—Notice is hereby given, that the HALF-YEARLY INTEREST on the Company's Six per Cent. Loan Notes, dated in March, will be PAID as they become due, in the month of September, on presentation of the Coupons at the Company's office.

Notice is also given, that on Loan Notes, applied for after 1st September, only 5 per cent. interest, instead of 6 per cent., will be allowed.

19, Birchin-lane, August 20, 1852.

ROYAL AUSTRALIAN BANKING COMPANY.—(To be Incorporated by Royal Charter).—Notice is hereby given, that the SCRIP RECEIPTS of the above Company are READY for DELIVERY in EXCHANGE for the BANKERS and TRUSTEES' RECEIPTS, at the offices of the Company, 9, Moorgate-street, Bank, daily, between the hours of Eleven and Twelve o'clock.

London, August 18, 1852. By order, PERCY DRUMMOND, Secretary.

PATENT SAFETY FUSE.—The GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH, and DAVEY, who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE *has now a thread wrought into its centre*, which, being patent right, infallibly *distinguishes it from all imitations*, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.

Address,—BICKFORD, SMITH, and DAVEY, Tuckingmill, Cornwall.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON and CO., PENHALLICK, near REDRUTH, CORNWALL, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

Messrs. BRUNTON & CO. are at all times PREPARED to EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE direct from their own MANUFACTORY, upon warrant that it will prove equal to, if not better, than any to be procured elsewhere.

MINERS' IMPROVED SAFETY LAMP.—Messrs. THORNTON AND SONS, BIRMINGHAM, beg to call the attention of the Mining Public to the important IMPROVEMENTS they have made in M. ELOIN'S LAMP. By the use of this Lamp the existence of fire-damp is instantly detected, and all accidents in mines from that cause may be avoided.—Price 10s. each; cased in mica, 12s.

London Agent—Mr. S. MARTIN, 14, Gough-square, Fleet-street.

Original Correspondence.

ON THE HISTORY OF SPANISH MINING.—No. III.

Corps of Mining Engineers.

Sir,—The serious want which was felt for many years after the mines were thrown open, not only of practical mining skill and of skill in metallurgic operations, but of the knowledge of the physical sciences on which they are based, was of incalculable evil to this incipient industry; it called into existence a numerous class of pretenders and imposters, equally ignorant and unprincipled, who, flattering the exaggerated expectations and the prejudices of their employers, committed innumerable frauds and absurdities, wasted much capital, and at length threw discredit upon mining. There is scarcely, indeed, any great town in Spain in which there are not parties who have suffered from the imposition of this class of persons, whose malpractices for a long time did considerable injury to legitimate mining, while wasting the capital which ought to have been devoted to it. As early as 1825 a school of practical mining had been established in Almaden, in which subterranean geometry, mineralogy, and assaying were taught to the pupils, who were chiefly destined for the occupation of "capetaces," or captains of mines; but this local establishment for a long time had little influence, the number of pupils issuing from it, and available, after supplying the Government mines, being very small.

In 1836 a much more effective and complete establishment was formed in Madrid, being a school of mining engineers, somewhat on the model of the celebrated mining schools of Freiburg and the Hartz. In this school young men were received from the age of 15 to 25, but only after passing an examination in all the preliminaries of a good education, and being thus fitted for an engineering career. The subsequent range of studies combined, not only the arts of mining and metallurgy, but the various collateral sciences on which they are based and noted, for three years, after which, and undergoing the corresponding examinations, the pupils were sent for one year to one of the Government mining establishments, to acquire that knowledge of practical details which could not be learned in the capital. From this mining school, which has borne good fruits, the mining engineers, divided into various grades (I believe by seniority), are now selected. The steps of ascent are the following, beginning with the pupils after leaving the mining college:—"Aspirantes" of the second, and afterwards raised to the first class. "Ayudantes," or assistant-engineers, also of the second and first class. Engineers of similar gradation being promoted, as vacancies occur, from the second to the first class. The latter pass by gradation to the post of inspector-general, of which there are two, the head of the whole mining corps being the director-general of mines. The organization of the body is, in fact, a military one, as in the mining schools of Germany, and a handsome dark-green uniform is worn by the engineers on all occasions of ceremony. All the mining establishments of the Government are, of course, under the sole management of the engineers, who also conduct the mining business of the country generally, more especially the granting and marking out of setts, and the collection of the revenue resulting from the produce of the mines. The importance of the corps is, however, much diminished by the new mining law of 1849, which deprives the inspectors of judicial functions, and places them in subordination to the governors of the provinces to which they are attached. The engineers, however, have no direct control over mines worked by companies or private individuals, except, indeed, in the extreme case of the lives of the men being exposed by falls of ground, &c., the result of bad working. In this case they have a direct interference, and may order the necessary works, whether of timber or masonry, to be executed at the expense of the parties. With a view to improve the working of coal mines, an establishment for the instruction of "capetaces" in this branch of mining, and similar to the practical school of Almaden, has been established for several years in the Asturias.

In concluding this brief review of mining legislation in Spain, I may remark that it has been, on the whole, liberal and judicious, and notwithstanding the great preliminary difficulties of naturalizing a new branch of industry, so varied in its features and so difficult to regulate in its results, it has worked well, and accomplished its objects. Most deplorable would it be, therefore, if, in the rage for *paper* legislation which prevails here, its good effects were to be marred by retrograde laws or restrictions. It is astonishing indeed, and must be numbered among the curses of this country—the inexplicable "*Cosas de Espana*," that seeing the good effects of liberal regulations in one branch of industry, it has not been the means of stimulating a better spirit in others, in place of the absurd, restrictive, and monopolizing system which prevails, to the infinite and increasing injury of the commerce and revenues of Spain, and the continual vexation of the industrious classes, who complain that they have every year increasing burdens, and with diminished means of meeting them.

It would be a great omission were I to pass over some of the *indirect*, but not less important, benefits which Spain has derived from the revival of mining. One of these is the generating of that spirit of association which has effected so much in other countries, particularly England and the United States. Mining has rendered the formation of companies, or "empresas," in which persons of all classes and opinions meet together on the neutral ground of uniting their capital and exertions in the expectation of attaining some common benefit—a matter of common occurrence in Spain, where before it was almost unknown. Though the issue of very many of these has been unfortunate,—and unless meeting with early success, the object is too often prematurely abandoned,—yet the principle and the habits it has induced are a great advance in the social system of Spain, where previously it had scarcely an existence. Many mining companies, too, have been highly successful, and have realised immense sums by their operations; and it is reasonable to conclude that now, when so many preliminary frauds and difficulties incident to mining have been overcome, that the number of successful associations will increase, and that they will be better organised and on a wider basis than before.

The establishment of the mining school at Madrid, and of the corps of mining engineers, has also formed an era of great importance in the scientific position of the country, which, compared with England, France, or Germany, is incredibly backward. In fact, science is almost unknown in Spain; of original discoveries there are none; of original scientific works or periodicals there are scarcely any; and I have even seen English scientific productions *re-translated* from the French, so little are the treasures of English knowledge directly known in this country. Within the last few years the corps of mining engineers, almost the only scientific body in the Peninsula, have exerted themselves, greatly to their honour, in removing what they feel to be a national reproach. The ample field of Spanish geology, so lately unexplored except by the labours of a few English and French naturalists, has particularly engaged their attention. Don Joaquin Ezquerra del Bayo, inspector-general of mines, has not only contributed general works on the art of mining, but numerous articles on the geology and mines of the Peninsula, which contain a valuable fund of information on the subject. He has further done good service in generalising the study of geology, by an excellent translation of Sir Charles Lyell's well-known work. Don Amalio Maestre, Don Ramon Pellico, Don José Aldama, and other engineers, have been indefatigable in their geological researches in various provinces of the Peninsula, and to this task several of their colleagues are now devoting themselves with energy. Don José Monasterio, besides his practical services as inspector of the district of Carthagena, has written very able notices of the mines and smelting works of that province. In chemistry and metallurgy, Don Luis de la Escosura and Don Policarpo Cia have distinguished themselves in a very honourable manner. It is hardly possible, indeed, to overrate the influence of the mining engineers, scattered as they are throughout the various provinces of Spain, and bound together by a strong *esprit de corps*, in disseminating and advancing that scientific knowledge which is so greatly needed in the Peninsula.

The disgraceful want which exists in Spain, not only of a geological map, but even of a *moderately* correct topographical map of the country, so essential not only for the purposes of science, but even for the more palpable necessities of statistics and government, has not failed to attract the attention of the mining engineers, and there are several now labouring with great zeal to supply this national deficiency. It must be evident to those who have had any experience in the time, cost, and labour of geodesical operations, and the topographical details which ought to follow them, that any isolated and individual exertion in the vast territory of Spain can affect little, very little, towards the end in view; and that even that little will be, in great measure, superseded whenever these operations are undertaken as a really national work, and on the scale and with the splendid instruments with which they have been executed in England, France, and other countries. It is, however, as honourable to the corps of mining engineers as it is disgraceful to the Government which looks coldly on, that two or three unassisted individuals should thus devote their best energies in the pioneering of a great and useful national undertaking, which ought, long ago, to have been put in hand at the public expense. To this subject, however, and the great inconvenience which results from the want of a correct map of Spain, I may probably have to refer again in my subsequent communications.—An English Miner.

Murcia, Spain, July 16.

ON THE PROBABLE INFLUENCE OF THE EARTH'S ROTATION ON LOCOMOTION BY SEA AND BY LAND.

Sir,—My attention has been drawn to a communication in your Journal of the 7th instant, signed S. B., in which the writer gives such a distorted view of the contents of a letter of mine upon the above subject, which was published in the *Mining Journal* of July 24th, that I must beg you to allow me space in your columns for a few remarks in reply. I sincerely trust that your readers, who have not read my letter above alluded to, will not do me the injustice (on the credit of S. B.'s assertion) to suppose I have in that letter made the monstrous assumptions he alleges I have. The fact is, S. B. has misconceived the question altogether, and misstated everything he has advanced in reference to my letter, which I shall presently prove, and leave him to account for having done so in the best manner he may. In the first place, I have not said anything about "matter deposited loosely" on the surface of the earth not partaking of the earth's rotative motion; nor have I said anything which could possibly lead to the conclusion that I entertained such a ridiculous idea; nor can I imagine what could be the object of S. B. in insinuating that I had done so, unless it were to furnish him with an opportunity of showing what awful consequences might be expected if such a heterodox theory were true. I beg, however, to inform him that my opinion on this point does not differ from the doctrine laid down by Sir Isaac Newton.

The next misrepresentation is still more surprising, because I not only have not said what he alleges I have, but I have stated distinctly the contrary. Let the reader judge. Referring to my letter, S. B. says, "it is assumed that in the case of a vessel at sea, or a locomotive on land, by the rotation of the earth the surface actually slides from beneath these bodies when in motion, causing a quicker passage or journey in going westward, and a slower one in travelling eastward." Yet in my letter I say, "*the cause above alluded to will be inoperative while we travel along the parallels of latitude*," expressing in clear language that the rotation of the earth will not interfere with us in travelling either east or west. Your correspondent S. B. does not appear to understand what is meant by parallels of latitude, but seems to suppose that I mean concentric circles, or surfaces which slide over each other, and so move with different velocities—the earth moving faster than the air, &c. This, he says, would create an "artificial" wind at the equator, traversing the earth from east to west at the rate of 1000 miles per hour; and even in our latitudes, where he says "the circumference is less," it would produce a wind of 600 or 700 miles per hour. He then proceeds to give us the statistics of storms, tornadoes, hurricanes, &c., all which he intimates would be infinitely outdone by the tremendous results of some preposterous notion he has formed, and which he calls my theory. It is a most unpleasant task for me to point out these strange discrepancies, but no other course appears open to me, unless I quietly submit to be shown up as an ignorant blockhead, by having opinions foisted on me which I never held.

The facts of the case are before your readers, and they will judge how far I have established my charge of misstatement. They will, no doubt, agree with me that discussions of this nature ought to be conducted in a fair and truthful spirit. If your correspondent, S. B., is really labouring under a mistaken view, I will endeavour to set him right, and in so doing I hope to make myself intelligible to all your readers. The little experiment familiar to scientific men, which S. B. has alluded to, contains the whole gist of the matter in dispute, the fact established by it forming the foundation of the theory I am advocating. The ball dropped from the mast-head of a moving ship would undoubtedly retain its onward motion by its own momentum, and I believe the line of its descent would be a paraboloid. Well now, suppose a ship were at the equator, and, of course, partaking of the earth's rotative motion, which there amounts to 1300 English miles per hour: imagine this vessel suddenly transported to our latitude, where the rotative motion towards the east is less by about one-half; the vessel (like the ball in the experiment), retaining its onward motion by momentum, would rush through the water towards the east at the rate of 650 miles per hour in the first instant. What is here contended for as an integral amount of force due to momentum, would in the case of a vessel sailing from the equator to our latitude be equally effective, though operating by *fluent* quantities. The equator and our latitude have been given as an instance, because they were alluded to by S. B.; the effect, however, will be comparatively greater if we instance New York and Liverpool, where, with a difference of only 13° of latitude, we have a difference of rotative motion amounting to 160 miles per hour—the rotative velocity of the different parallels of latitude being as their respective cosines.

If S. B. will take what I here state as a key, and read my former letter with care, I have no doubt but he will come to the same conclusion as I have done upon the subject; and that he will see that the theory he has been contending with was his own, while mine is not materially different from that by which the *trade winds* are accounted for.—Uriah Clarke.

Leicester, August 18.

CRADDOCK'S ENGINES.

Sir,—Noticing the enquiry by a "Cornish Engineer," respecting these engines, it has occurred to me to remark on the main cause of the great slowness with which changes of great value in inventions, involving much mechanical detail, are received into general use. This arises from the very natural habit of practical men, who are always regarding the details with which they are daily conversant, *as they are* in the concrete, without much reference to the *principles* those details are intended to embody. This is a most natural habit, and it has its value, but is very prejudicial to progress, by fettering the mind to the improvement of minutiæ only, and rendering it averse to the more comprehensive exercise of searching the foundations on which such minutiæ rest; and yet, if properly used, these very details are most serviceable, nay absolutely essential, to the illustration and further prefection of principle. They are really the stepping-stones by which the intelligent mind advances in a new career, though used by the plodding mechanician as nothing better than his path of daily traffic to and fro. It is in consequence of this perception of creative principle that all the great inventors in the steam-engine have reached their achievements, by seeing something far beyond, which, although they may not have been able entirely to reach, the effort has carried them as far beyond their compeers as they may have themselves fallen short of their ultimate mark. They have realised the old fable of the archer, who, aiming at the sun, shot higher than his fellows. Watt realised the injection condenser, but he saw the greater value of the principle of surface condensation, and attempted a tubular condenser: he failed, but the capacity and the achievements of the engine which he *did* perfect have at length made possible the realisation of the principle he had not *then* the means to attain. Woolf, in grasping the capacity of the expansive principle, saw the defects of the mode of generating steam by bringing fire and water together in bulk: he recognised the sound sense of the farmer and the washerwoman, and devised an arrangement of tubes to contain water and not fire, not presenting, as under the *present necessities* of the locomotive, a mass of water to small portions of heat, a plan identical with that of the smelter who should attack a large mass of ore with a regiment of blowpipes, but presenting a mass of fire to small portions of water, conformably with the smelter who *comminutes* the mass of ore and immerses it in his furnace, an arrangement to subdivide the water before the heat and promote absorption, by enabling the flame to impinge against its object instead of glancing off obliquely, or passing in parallel lines at an enormous waste of fuel. But the trivial and intrinsically insignificant obstacle offered by the incrustration of tubes which could not be reached to be cleaned, made Woolf's plans useless, and held in abeyance the full development of a great principle. The realisation of a tubular condenser, perfect and effectual, as the condenser which Watt made, and which made his engine, has enabled Craddock, by realising Watt's further idea, to realise Woolf's idea also. It is thus that principles are linked together, and the progress of one act perfects another. Craddock has been enabled to carry out this incalculably valuable union by seizing another philosophical principle—viz.: the enormous evaporating, and therefore cooling, effect which attaches to surfaces set in motion in the evaporising medium. This effect, practically known to every person who has had to search for a towel to dry his hand, was first treated in scientific shape, with the due appendage of experiment, by Professor Leslie, in his work *On Heat*. And it is no small proof of the true philosophic genius of the present inventor, who has realised his principles self-aided, devoid of opportunity, under that weight of discouragement which has been almost invariably the parent or the nurse of anything great, affording a strong practical commentary on that sad and fallacious mania of our times, for cramming all sorts of people with all sorts of things, with the view of *making* men of talent, at the very time that all the self-dependence, the child of difficulty, which alone makes the *character*, to whom the possession of the knowledge (or the talent) imparted, is worth a straw, is, in fact, merely more than babble; is by the very act cut away from beneath them, leaving a frivolous, sapless, rootless plant to pick up its living as a vagabond parasite. It is, I say, no slight mark of Craddock's true genius that he grasped the value of this principle and realised it before he had any acquaintance, as stated in his lectures, with Leslie's investigations. It is the power of this principle, so foreseen and realised, which has enabled him to take up the failures of Watt and Woolf, and perfect the attempts of both in an [illegible]-soluble union, completing a condenser which can be applied either where water for condensation is impracticable, as in the locomotive, doubling its power by using to effect *with* the atmospheric pressure the enormous volume of forcible steam now puffed away *against* that pressure; or, where water for condensation is practicable and convenient, and possessing in *both cases* the full practical efficiency of Watt's condenser, *without its inconveniences*, whilst the principle which makes it efficacious even in the rare medium of air, enables it to act with a far smaller expenditure of water than the condenser by injection requires; and, crowning all, the entire exclusion of condensing water from the interior of the engine and boiler, not only dismisses all the difficulties with which *quality* of water (as in marine engines) besets the steam-engine, but by the use of distilled water, which defies incrustation in generating steam, permits the correct principles of Woolf's boiler to be *brought into full play*, enabling the engineer, with a safety to which there at present exists no sort of approximation, to use the full power of steam at high pressures, combined as it is of two elements—that due to the tension of a given weight of steam at any pressure, and that due to the increased dilation of fluids as they increase in sensible heat. It is by examining steadily and completely the *defects* and *requirements* of steam-engines and boilers *as they exist*, bringing their details under the light of the principles which they *attempt* to embody, that a "Cornish Engineer," or any other person interested in the subject, will best prepare himself to understand the incalculable value of Craddock's comprehensive, and yet most simple changes. His are no random inventions, such as we so frequently hear of, propounded by persons who think they have had the chance to hit a new wonder. His pretensions are of no such class, he does nothing but what is done already in *some* way, or in some degree. He has no vague and untried uncertainties; the value of his system is practical and definite, because it can be most correctly read in the defects of existing systems. The *want* and the *value* of each member which he has supplied is clearly acknowledged, and may plainly be pronounced by the intelligent mind in the deficiencies which every engineer has every day to contend with. He has taken a course of invention in which there can be no mistake; nothing more is required but to know the steam-engine as it is, not in its merits only, but in its defects, and when the desiderata are once marked clearly down in the mind, it will immediately recognise that Craddock has supplied them, as unhesitatingly as a lame man knows his crutch, a deaf man his ear-trumpet, or the dim-sighted his spectacles.—David Mushet: *August* 25.

SMELTING OF COPPER ORES.

Sir,—Mr. J. H. Vivian, in a paper "On Copper Smelting," in *The Annals of Philosophy*, 1823, says the *acid* of sulphur performs an important position in copper ore smelting. I must take leave to doubt whether its effects extend beyond those of destroying the surrounding vegetation, and injuring the health of those who may inhale it. Sulphur itself undoubtedly performs a very important office; it bears the same electrical relation to copper as oxygen and chlorine do to that metal. If sulphur and copper be mixed together, and the temperature raised to the melting point of sulphur, the effects which accompany energetic affinity will show themselves, and the two substances will unite with explosive violence, as this takes place in vacuo, as in atmospheric air, it follows that it is not due to the *acid* of sulphur, but to the electrical relations of the two bodies. This again may be shown by causing a disc of copper to touch a disc of sulphur, when the changes or movements which afford strong affinity will appear, and with great energy also. It is on this principle that I have endeavoured to introduce to the trade an application for the smelting of copper ores, which has been looked on by them with much the same feelings as the Reform Bill was regarded by our Cornish Boroughmongers.

5, Gray's Inn-square, August 22. Thomas Irving Hill.

THE VENTILATION OF COLLIERIES.—No. II.

BY DAVID MUSHET, ESQ.

So much, indeed, does the constant growth of discovery make great things possible in one age, which were impossible before, that it is a question whether the combination of Watt, Wolf and, Trevethick, in the full developement of their respective principles, which Craddock has accomplished, could have had its present perfected existence without a knowledge of vulcanized caoutchouc, which forms an item in the construction of this engine of no more bulk than the eye in the proportion of the human frame, yet of a value as intrinsic and absolute. Still without *principle*, clearly perceived, strictly adhered to, and resolutely followed up, all facilities whatever would have been in vain. Hundreds and thousands have equally known and commanded them. All the world had the command of the condensation of steam before Watt applied it, but the clear mind was wanting, the sincere adherence to those simple truths which *form a principle*, and which, simple as they are, it seems always the province of the multitude to pass by, and choose instead the most troublesome and laborious expedients. It is this adhesion to what seems so easy, and which yet experience proves is so difficult, that constitutes the value of what Mr. Gibbons has not only *said* but *done* in the ventilation of coal mines. He has gone to the root, whilst others (it would appear, in vain) have been attacking the branches. And it is a feature by no means to be passed over as insignificant in commending attention to his views, that his brother Mr. John Gibbons, with entirely congenial mind, was the first person who perceived and applied a principle in the construction of the blast furnace, and that it is to the adoption of the principle so defined that must be attributed, more than to all other causes, scarcely excepting even the hot blast, the enormous increase in the produce and the economy of our iron establishments. No diagram of a blast-furnace even now appears which is not "Gibbonized," and yet, usual as is this term, there is perhaps no novelty of equal value which is so little connected with the name of the author. The change of the angles and proportions of a few lines in the interior of a furnace, which when once filled with materials is not seen again for many years, makes no demand upon the attention;—a furnace is built, the builder himself has, perhaps, no knowledge whence the custom of his proportions was derived, and no one thinks more of the matter. Other inventions bring a daily reminiscence of the author;—hot air carries constantly its own warrant that it is not cold, and the visible condenser of the steam-engine will be ever linked with the inventor's name. Sometimes the author's name is unaccountably obscured and divorced from his works, as in the case of the oscillating engine, the feathering paddle-wheels, and other inventions which were prominent objects in the Great Exhibition. One omission in that building I had particular reason to be struck with. My late father did not pretend to be the discoverer of the various combinations of iron which form the basis of the processes of manufacture, but he was the first person who practically recognized and discussed these principles, and devoted himself in applying them to improvements. The philosophical idea of introducing an oxide of iron into the puddling-furnace, so that by a double decomposition the carbon of the pig-iron should combine with the oxygen of the ore, leaving the two portions of pure iron to unite together, greatly increases the yield, and enabling the direct use of pig from the blast-furnace, dispenses with the cost of the intermediate process of the refinery. This improvement has long been extensively used in Staffordshire, and in Wales it is principally adopted in a modified form, by boiling, as it is termed, the pig-iron in the less pure oxides of the forge and mill. In the collection of hematitic ores contributed by Messrs. Harrison and Ainsworth, a sample of pure small, best fitted for the purpose, was labelled as "puddling-furnace ore," without any reference to the author of such an important change, and I was naturally struck with the omission. *Adherence to principle* by *one*, thus originated a new and beneficial use of materials, which had always been at the command of *all*. See what Mr. Evan Hopkins has done for the science of geology by pursuing the like simple course, by being dissatisfied with mere floundering guesses, by recognising the comprehensive truth that Nature always *works by principle*, and resolving to investigate and ascertain that principle; whilst others have been turning their backs upon Nature, and, forgetting the teaching of Lord Bacon, have been wallowing in the idols of their own minds, and pursuing the very course he condemns, by accepting, not indeed the extravagances of the schoolmen, but the extravagances of a mathematician of the 17th century, Mr. Evan Hopkins has looked at things as they are, and questioned Nature. In consequence, he has discovered a rational system of the structure of the earth, uniting both practical and philosophical value, whilst the igneous dreams which Leibnitz suggested, and theorists adopt as geology, have become the daily cloak to a mass of disgusting pecuniary fraud, which makes the very name of the science an offence. No one who knows the value of principle, will consider these remarks a digression from the subject I am treating: they are an illustration of the value of that which cannot be too comprehensively illustrated. If the ventilation of coal-mines is to be improved, until they are made, as they may be made, as safe as our own chambers, for even at home we have accidents—staircases to fall down, and combustibles to set in a blaze—that improvement will only be effected by quiet attention to those principles which Nature has stamped upon all her works, by patiently examining and perseveringly contemplating them, with full purpose to apply the light which is sure to dawn upon fidelity.

Mr. Gibbons produces a force of evidence, which no one can venture to slight, that the continuance of the frightful explosions of our collieries is caused by following a wrong principle, by attempting to palliate the evil instead of eradicating it; that scientific ingenuity has been tasked to the utmost to find means to face, in a dim and hollow security, that enemy which we first forcibly restrain, and then endeavour by enormous efforts to drive out with violence. All which efforts might be dispensed with, on the simple principle of *letting him escape*. Nature will never fail to teach us right, if interest, prejudice, habit, or narrow capacity, do not restrain us from listening to her voice.

The question of ventilation and its advocates, as at present occupying public attention, may be divided into two sections. The first includes those who adhere to the

prevailing mode of obtaining a current by the rarefaction of artificial heat; the second, those who propose novelties as an improvement—either the complication of mechanical agents, or the direct use of steam-power by the jet. The latter division of this section is the most united; its members propose a single means, whereas the mechanical contrivances are numerous; they also especially sail under the colours of benevolence—the worthy author of the steam-jet having none of the pecuniary interest in the adoption of his scheme which attaches to the various inventors of patent machines. But in point of principle, both divisions are one—the object of both is the enhancement of the dilution system; and it is upon the alleged greater power of their plans in effecting this, as compared to the furnace, that they ground their claims to support. If this principle of forcible dilution is proved to be erroneous, the two divisions will fall together. I need say nothing on the mechanical means; the objections to these complications are well appreciated by practical men, but the proposal of the substitution of the steam-jet for the furnace requires more particular notice, from the nature of the arguments upon which its efficacy is urged, and from the mysterious properties attributed to it, in overcoming, no one knows why, certain inexplicable paradoxes. Mr. Gurney's chief supporter in the steam-jet has been Professor Hann, of King's College, a gentleman who, with the highest credit, has raised himself from the level of a working miner to that eminent position; and I have no doubt whatever he is perfectly sincere in his endeavours to ameliorate the condition of the class from which he has risen. The feeling does him great honour, but I think he is rather too much inclined to take a party view of what is strictly a practical question, to be decided solely on its merits. He somewhat prefers addressing a public which knows nothing of these merits, through the channel of the daily prints, to searching out all the details before men of practice. It was thus that he slipped away from a discussion which he had himself opened in your pages two yeare since. In short, he must have the steam-jet, and nothing else, and desires no arguments against it. The two main points upon which the advocacy is rested of this substitution of the jet for the furnace are the paradox by which, in some mysterious way, it is asserted that, instead of hot air only ascending the upcast, cold air also comes down; and secondly, the experiments on ventilation detailed in the French work of Coombes, and quoted before the Lords' Committee by Professor Hann, according to which, under a similar mystic inexplicable agency, an increase of rarefying heat in the upcast column ceases to produce what, *a priori*, should be expected, a proportionate increase in the current corresponding with the greater preponderance of the downcast column. The only explanation attempted by Mr. Gurney and Professor Hann is, to resort to what they style the natural brattice, and which Mr. Gurney made to his purpose in a lamp glass, in order to prove that it existed elsewhere. Now, it appears to me in this evidence, that these gentlemen made two remarkable oversights upon these two points of Coombes's experiments, and their "natural brattice." The first oversight is by no means confined to the ventilation of mines, it lies at the root of all the defective ventilation of public buildings, and, so far as I know, your correspondent Mr. Coxworthy was the first person to bring the true principle, and the ordinary departure from it, into prominent notice. But instead of the truth being acknowledged, with due praise to the acumen which detected it, the narrow jealousy of the human mind to admit its errors, and the tenacious fear of risking the loss of a little worthless reputation, is so great, that the assertion of this correct principle, joined to the common place wish to preserve the common-place distinctions of *meum* and *tuum*, has, on the contrary, earned for the author a kind of treatment from men of science, reputation, and would-be scientific officials, which makes us tingle with shame at the state of public morality in high places. Had these possessed only an average minimum of honesty, as well as sense, the unhappy sufferings of our lawgivers by suffocation might long since have ceased. But popular science, that is the science of persons who cannot take the trouble to have any clear ideas, consists of phrases and terms,—when a phrase is coined easy of pronunciation, *ore rotundo*, filling up all vacancies,—in fact a good mouthful, such as "diffusion of gases," "association of ideas," "metamorphism," &c., &c., it soon passes current, and the whole work is done.

The particular application of this oversight, which appears to me to have taken effect on the part of Coombes and his disciples, is the omission to notice the increased proportion of heavy carbonic acid gas, which is generated when the consumption of fuel, for rarefaction is greatly increased. I have not Coombes's work, and cannot, therefore, certainly know whether he entirely neglects this consideration, but it is certain it is not at all referred to by Mr. Gurney or Prof. Hann, in their evidence, as affording any assistance in the solution of their difficulties. Their only resource is the paradox, which this fact seems to annihilate by the simple though uninteresting process of explaining it. A temperature is required exceeding 400° Fahrenheit to diminish carbonic acid gas to the specific gravity of common air at 60°; every volume of oxygen consumed at the furnace is changed to an equal volume of gas nearly double its weight; and when this operation is carried on to a great proportionate extent upon the current of air, and the product discharged into a badly proportioned upcast of large size, where slow velocity diminishes the force of impact by which fluids are enabled to carry before them even much more ponderable substances, the result can neither excite surprise nor require the envelope of mystery. It may be urged here that this explanation is no argument against the preferable properties of the steam-jet, but the contrary; for if the fact remains unaltered, that an increase of heat by the furnace does not produce an increase of current in proportion, the substitution of a clear and definite explanation of the cause of this effect, in the place of a paradoxical mystery, serves only to set on a strong and unintelligible basis the argument for using a power which does not involve this counteracting heavy gas. And I admit the force of this conclusion, so far as respects steam generated at the surface, and carried down to the bottom; but if the boiler is underground, the heavy gas to come up will also increase with the increase of steam. But this is merely one point out of the many which must be included in a complete estimate of the economy and applicability of the jet, not half of which I have yet seen discussed, and it must be taken only for as much.

The other oversight which I notice is the attributing that part of the paradox called the *natural brattice* as the *exclusive* property of furnace ventilation. This theory assumes the existence in the upcast shaft of an ascending current of hot air and a descending current of cold air; and between the two, with that peculiar refinement of abstract speculation, so congenial to the mathematical mind, the professor places a thin plate of motionless air, which forms the "natural brattice." The properties and conditions of this imaginary thin plate of air are further discussed in the like abstract strain. But these refinements are of no use for any practical purpose; they are, in fact, an ingenious trifling, which is but too often called science. The question is simply mechanical, and that in the very simplest shape. If the arrangements are so excessively bad in their amounts and proportions that the full supply of air demanded to follow the ascending column produced by the furnace cannot be derived from the interior of the mine, and there is such a great lateral vacuity uselessly presented at the sides of the upcast as to permit of the supply coming down that way, the air will undoubtedly come down. But such arrangements would be mere acts of stupidity, quite undeserving of mathematical assistance; and the supposition brings out in force the point of the peculiar oversight in attributing such an inefficient circulation as the *especial* defect of the furnace.

Mr. Gurney explains, and with perfect correctness, that when the same bad arrangement is attached to the steam-jet, and the force of the steam is erroneously applied in a large channel, which that force *does not fill*, it loses its intended power by the *air coming down the sides of the channel instead of from behind*. Thus there is a *steam brattice* perfectly coincident in its origin and its consequences with the *natural brattice*, depending alike on flagrant errors of construction and adaptation, affording a singular example of the force of attachment to favourite views, when we see the author of one system explaining that it possesses the same capacity for error, which he at the same time alleges as the peculiar defect of that other system, upon which he grounds the demand for the substitution of his own. He even supplies a diagram showing the upcast *contracted*, on purpose to prevent the formation of the "natural brattice" *by the jet*.

I have frequently alluded to the fallacy on which a main argument for the steam-jet is grounded—viz.: its efficacy in producing a draught in the locomotive where there is only a very short ascending column to give effect to the weight of the atmosphere; and in a similarly fallacious logic, the propriety of applying steam-power to ventilate mines has been urged upon the fact, that in some cases it has been used with advantage to supersede the use and cost of stationary chimnies. These views are totally inapplicable to their subject, the chimney of the upcast is in existenee, and it must remain with its enormous capacity for power; to dismiss it is as impossible as undesirable. There is also a similar fallacy or oversight in the plea of the other great instance of the advocates of the jet—its successful application in extinguishing ignited coal seams by a current of carbonic acid gas. The benevolent practitioner appears to have overlooked one crisis; we know medical men are occasionally apt to have favourite remedies, which they will sometimes universally prescribe, forgetful how much it is Nature who really effects the cure, and that our best practice is only to aid her efforts. Were it the fact that the steam-jet is the absolute agent by which these extinctions are effected, it no more inevitably follows that this force ought equally to be applied to collieries in a natural and healthy state; then it follows, that because a dose of calomel is excellent in a disease, we should at all times be dieted on mercury. But the steam-jet is not the absolute agent of the extinction; there is an oversight in apportioning the merit of the respective agents in this operation precisely similar to the oversight of attributing the unavoidable effects of the products of combustion to a paradox in the furnace, which nothing but the steam-jet can cure. If no steam-jet were used at all, but merely a vessel generating carbonic acid gas were attached to the mouth of the shaft, the gas would descend by its own gravity, and fill every crevice of the ignited mine. It would as surely have descended one shaft and ascended the other to the level of the generating vessel, expelling before it the atmospheric air, as a stream of water or any other more ponderable fluid. The effect might not be so rapid, but there would be advantages; no danger would exist of atmospheric air being drawn in through imperfect stoppings by the force of the current; on the contrary, the extinguishing gas would everywhere permeate outwards. No doubt, I admit, the extinction might be more speedy, aided by the cooling effect of a fast current carrying away the heat of the parts which were extinguished, but I believe this operation essentially and effectually could be performed without the steam-jet at all, and with a much smaller expenditure of carbonic acid gas. A moderate jet, or other mechanical power must, of course, be applied after extinction, to draw out the heavy gas. It is not the *quantity* of this gas passed through, nor the force with which it passes that extinguishes the fire, but the presence of a medium incompatible with combustion, which excludes its natural support, and is subtle enough to enter every crevice of fire; this medium will descend, and enter by its own natural laws. The operation might, therefore, be performed without the cost and trouble of a jet, wherever a colliery is properly arranged, to permit the escape of the lighter before the heavier fluids. And whether with or without the steam-jet, the condemned principle of rarefaction by heat is really a most important agent, existing in all its force by the expansion of the heavy gas which has passed the region of fire. Very great credit is due to Mr. Gurney for having suggested, and carried into practice, the use of carbonic acid gas for this particular purpose, but there can be no reason to doubt that, like all first ideas, the application is capable of being improved on.

I have taken some pains to notice the particulars of the steam-jet, because it is undoubtedly a power which may be often made useful; and it is, therefore, the more important to appreciate its real capacity, and not be led astray from a consideration of its proper uses by ill-grounded or impracticable proposals. To direct attention exclusively to the endeavour to make it a substitute, and set it up as an antagonist to a more simple, equally powerful, and more universally, convenient, and economical agent, is carrying our efforts in a wrong course, and, therefore, inevitably neglecting advantages which efforts in a right course might attain. In many cases now existing, or which hereafter may exist, the steam-jet is calculated to act with peculiar force and convenience; and the main object ought to be to ascertain these peculiar merits intrinsically. So long as its advocates use its properties only for a party cry against the existing system of the furnace, they are attempting that which, whether their efforts are *bonâ fide*, believing that it is capable and worthy of being so substituted, or whether they are not—that is, whether they are only deceiving themselves, or attempting to deceive others, or, as is very common, doing both together—they will assuredly fail in, and by such attempts discredit a means which has advantages which they might develope, were their attention not misdirected from the serviceable path; for its very advocates allege that its useful powers begin where the furnace leaves off. The singular production termed the report of the Commons' Committee, having while I write come to hand, I might recommend its Members, if they wish to come to any "conclusions," *except their own*, to employ the recess in some experiments and calculations on the amount of gaseous expansion which can be obtained from water and from air by the consumption of equal weights of coal, and investigating the relative volumes of steam and air as condensation proceeds in the ascent of the upcast in successive regions.

My purpose not being to try force against force in a scale of nicetics, I shall proceed with the far more important inquiry, whether the principle which involves this competition of forces is or is not erroneous? whether the whole system itself, which creates the contest, ought not to be dismissed for another system, more natural, comprehensive, and correct, capable of removing entirely that danger which experience has but too plainly proved the present mode of force and of palliatives is incapable of dealing with, and has, in fact, tended far more to perpetuate than to extinguish? In this inquiry, I must refer again to the confused notions on the properties of gases—the popular scientific errors (for we have now got so far in our learning as to have popular errors of science fully more numerous and intricate than the vulgar errors of old) which have passed current as principles, and had an effectual share in retarding the use of proper ventilation in all situations, leaving the legislators, who sit to cure the miners' evils, in an atmosphere equally evil as the miners for whose cure they sit. The mischief of the peculiarly scientific is apt to be, that instead of watching the effect of natural laws upon natural facts and circumstances, they like to frame some theory, or system, in the first instance, and then look out for data to support the notion, rejecting what does not suit, and accepting only what they are able to force by some kind of inversion into their own mould. This is preparing to teach before rightly beginning to learn—a position the more active and attractive, because it costs something to learn, but nothing to teach. On the contrary, the teacher is paid. Numbers, therefore, hurry into this satisfactory condition, for which the chief qualification is to be ignorant of their ignorance, as the teacher must never be at fault—he must always have his say ready, and be ready to say, which is by no means the case with those who profess to be always learners from the beginning to the end of their lives. Mining has its full share of these peculiar advantages. There is, perhaps, no pursuit in which practice has groaned more under the incubus of corrupt or closet-bred imaginations. The miner knows it to be a certain fact, that cavities above the level of the air-courses become standing pools of inflammable gas, and that cavities below the level of the air-courses become similar pools of heavy carbonic acid gas. These are natural facts, which point to the natural means of removing the former from collieries; and the latter, which is the vitiating ingredient of human assemblies, from crowded rooms. But some gas-bottler in his closet discovered that, if gases of different specific gravities were shut up from the atmosphere—the lighter above, and the heavier below—and a communication made between them, they would be found to intermingle—the heavier rising, and the lighter falling. This was *science*, and, therefore, it took precedence of Nature and natural facts, under which we see light air pressed up against the roof of the mine, and there remaining by the force of the atmospheric column, not *then* excluded; whilst gases heavier than the atmosphere take also their natural level.

This substitution of the scientific law of the "diffusion of gases" for the natural law of their separation by specific gravity has acted a very considerable part in promoting and continuing the system of ventilating by forcible currents. It might have been noticed that carbonic acid gas is capable of "diffusion" in water when the weight of the atmospheric column is excluded, but that it is equally capable of asserting its natural levity when the vessel is enclosed. The comparative specific gravities of the gases exist, and act with equal freedom in the ordinary conditions of mines; the fire-damp would rush out, as the carbonic acid from a soda water bottle, were no means used first to confine it, and then forcibly to intermingle it with that atmospheric air which first forms the ingredient of its deadly and explosive character, and then generates the after-damp. It is the strong motion of the current which produces the degree of "diffusion" which exists; and, as I have already referred to on the evidence of able practical men, the more forcible and copious is that current to make a complete and extensive intermixture, the more forcible and extensive are the effects of an explosion. The continued increase which is being given to the force of these currents, attended with increase of accident, has also brought lately into prominent notice the fact stated by Davy, with due precaution upon the first invention of his lamp, that an explosive mixture striking against the gauze, either by the rapid motion of the lamp in the mixture, or of the mixture around the lamp, incurs great danger of passing through to the flame. All these are serious questions, sufficient, at least, to induce considerate men to pause, before they recommend with the precipitancy of the late electioneering committee—that the steam-jet, *because* it is capable of increasing in the greatest degree the force of these dangerous currents, ought to be adopted as the universal panacea. A similar notion of driving off carbonic acid gas by forcible currents prevails in superterranean ventilation, forming, I believe, the plan (if he has a plan) of Dr. Reid's inconveniencies. How simple and commodious, on the reverse, is the plan of natural drainage, proposed by Mr. Coxworthy. How invaluable would his arrangements prove in such emigrant ships as we have lately seen, with two decks, and 400 passengers stowed on each deck. The carbonic acid gas, which is as incapable of rising as a balloon filled with hydrogen is incapable of sinking, being drained from the bottom of the decks by proper means (a steam-jet, if you will), and proper funnels arranged to discharge the nitrogen and light-heated products, a copious supply of fresh air would be always falling below in place of streams and pools of mephitic air. Correct views of the laws of matter are the greatest blessings to mankind, but false views, promoted and maintained by public bodies, institutions, or officials, through pride, shame, or self-interest, amount to nothing better than a pestilence, in which schemers and jobbers rob the corpses of the dead. The constant and zealous duty of such authorities should be to revise the progress of science with perfect candour, to think nothing of the individual reputation of their members when it is founded on a false basis; but to be very jealous for the truth, diligently investigating, and lopping off all error with unsparing hand—their chief honour and occupation, with a sensitive pride, to prove themselves the castigators, and not the expounders, of fictitious theory. The dim and uncertain light too often inevitably prevailing in their precincts should be *confessed*, and never permitted to afford a harbour in its gloom for prowling marauders. Reluctance to remove the rubbish of time-honoured conjecture ought never to stay the hand of honesty; such a course of decision would remove the most unblushing weekly impositions and offences from the public eye. A gratifying instance of honest speaking has lately occurred, but one swallow does not make a summer; therefore, in the meanwhile, until a more flattering amount of symptoms of such amendment appears, I wish to address these remarks solely to practical men—to those who have acquired their knowledge by long daily observation and labour in real coal mines, under a due sense of the weight of responsibility. Persons who, by "adjourning" to the Polytechnic, or other similar pleasant place, can become suddenly competent upon colliery management, or the economical geology of gold, or other popular topics, are gifted individuals; they are the fast men of science; they jump to their "conclusions." The heavy-armed practical man cannot be expected to keep pace with skirmishers and sharpshooters. The Committee of South Shields are in the habit of congratulating themselves that the ventilation of collieries has been brought to its present *perfect state* through their exertions. Its members take credit to themselves for having made it *what it is*, as respects its *merits;* its only *defects*, in their opinion, seem the absence of the steam-jet, and an authoritative minister to enforce its use. What I earnestly desire is that the whole mass of talent, working under the so-styled views and directions of this committee, and practising their plan of ventilation by forced currents, would bring the whole weight of their experience to a critical examination of the soundness and the necessity of the principle they are thus engaged in practising, and, balancing what they do against what Mr. Gibbons is doing, consider seriously how far it may be practicable to transplant his principles of security to their own districts. The subject is, as no one can deny, of such importance as to render it worthy of the greatest efforts of impartial and candid consideration which the human intellect is capable of exerting; and Mr. Gibbons advances his views so solely and entirely upon their own merits, as exemplified in his own experience, without the smallest attempt to disparage or depreciate others, that his proposals eminently bespeak such candour and impartiality. [*To be continued.*]

REPORT ON VENTILATION OF MINES—SELECT COMMITTEE OF THE HOUSE OF COMMONS.

Sir,—We colliery viewers are but a dull set, which, therefore, must plead my apology for requesting your admission of a few remarks upon the merits of the steam-jet, which seem to have won so remarkable a precedency with the committee. In page 4 of the report they condemn the furnace as impracticable, in case of being required to increase the ordinary ventilation of the mine, because of the intervention of the "furnace paradox" and "natural brattice," being an imaginary "plate of air," said by Mr. Gurney to form invisibly in the upcast shaft, and so draw down that upcast shaft the supply of air, instead of bringing it from the downcast. The strangeness of this doctrine I will not stop here to discuss, but will pass on to where Mr. Gurney, in praise of the steam-jet, says "that it acts, when placed (where recommended) at the bottom of the upcast, as a rarefier to the extent of the steam used and fire under the boiler, its principal or direct efficiency depending upon its power of propulsion. The heated air not only rises from rarefaction, but any amount of cold air can be bodily pushed up the upcast, the amount merely depending on the number and size of jets employed, and the pressure of the steam."

This, like the postscript to a lady's letter, is really the most important part. I recollect witnessing some experiments of Mr. Gurney's, where he showed the velocity with which a high-pressure boiler could drive the steam up a pipe of 3 or 4 in. diameter; and he now says that the air can be drawn up a shaft with similar velocity, "for it all depends upon the number and size of jets employed, and the pressure of the steam."

Now, we need no great study of philosophy to discover that cause and effect would as nearly approximate in the one case as in the other; but what Mr. Gurney has never yet vouchsafed to tell us is this little tangible fact—How many boilers, and how many steam-jets, are equivalent to the effects of an ordinary furnace, which produces 30,000 or 40,000 cubic feet of air per minute? Mr. Gurney seems now to recommend that the boiler should be placed at the bottom of the pit, in order to obtain "rarefaction to the extent of the steam used;" but he keeps back the far more important gain which is exemplified at Seaton Delaval—viz.: the boiler fires and heated flues, which are equivalent to several furnaces, for the temperature of the shaft is 150°. I have been induced to look into the far-famed *South Shields Report*, to see what principle Mr. Gurney there laid down for his steam-jet, and in page 43 he thus communicates his discovery to the South Shields Committee:—"In the downcast shaft of 41 ft. area a current of air, at the rate of 20 miles per hour, must be effected to quadruple the quantity now passed through the mine by the furnace;"—"to do which, I would recommend the high-pressure steam to be applied in the upcast shaft, which I presume is about 5½ ft. square: 16 jets, 5-16ths of an inch area, fed by steam of 40 lbs. per inch, placed not less than 30 ft. deep in the upcast, and equally divided through its sectional area, would produce this rate of current through the downcast shaft. They should point perpendicularly upwards, and be supplied by one pipe, equal to the sum of the areas of all supplied by a boiler placed in any convenient direction out of the mine."

Then he goes on to say—"It need not interfere with the furnace ventilation, as they would assist each other; the latter should be retained, in which case, if anything occasioned the steam ventilator to stop, the furnace would go on."

In a subsequent letter, he states that it matters not where the jets are placed, "provided there be a sufficient column of air above to keep the current uniform, and 10 or 12 ft. are sufficient for this. I stated 20 or 30 ft. in the drawings, because it is better to have more than less."—"In some cases it may be more convenient to ventilate by forcing air through the mine than by exhausting it in the upcast."

The above extracts, together with Mr. Gurney's avowal, show that the principle of the steam-jet was based upon a disregard of temperature, which is the *prima mobile* of furnace ventilation; but numerous experiments show that, without the "furnace aid," it is (as applied to shafts 40 or 50 ft. area) practically useless. Important experiments will, I believe, shortly appear authoritatively before the public. Facts are strange things to contend against; and it is a little strange that Mr. Forster, the only practical man who adheres to the steam-jet, tried it upon Mr. Gurney's principle by a boiler at the top of the pit, and gave it up; and in the solitary instance where it is applied—viz., Seaton Delaval—it acts, as before described, in conjunction with two immense boilers, used for the underground engine, together with the heavy discharge of steam at each stroke.

Now, it may as well be reiterated what my friend the "Durham Viewer" says, that it is a moral impossibility for any man, however scientific, to pronounce what practical part of the ventilation of that pit is due to the puny steam-jets. It is alleged that the introduction of the steam-jet increased the ventilation of Seaton Delaval vastly; but are we quite sure that none of the ordinary measures for increasing ventilation were not simultaneously adopted, such as enlarging the air-courses, concentrating the ventilation into one shaft, &c.?—measures which are certainly producing altered effects without any steam-jet introduction.

The real question at issue would, as Mr. Joshua Richardson remarked in a recent letter, have been much more satisfactorily solved, if the committee had witnessed the operations upon some ordinary shaft, where the furnace and the steam-jet had been alternately set to work; and this, I believe, is now undergoing experiments by Mr. N. Wood and others, where it is to be hoped that Mr. Gurney will either attend or depute some scientific disciple to test the facts; for should these facts be decisive against a principle so lauded by science, and so panagyrised by a parliamentary committee, it will, I apprehend, go far to lower mining science in public estimation—but still *fiat justitia*. Our profession will then be entitled to take its rank as based upon extensive practice, enlightened by a safe and rational admixture of scientific knowledge. We have seen such signal failures where scientific men step out of their sphere, and presume to set all practical knowledge at defiance, that we must not be expected to give blind adhesion to any scheme which will not bear the test of fact and practice; therefore, without denying that high-pressure steam is a propulsive power, I challenge a reply, proving how many boilers and how much steam is equivalent to a furnace power which produces a temperature of 120°, and 30,000 or 40,000 cubic feet of air per minute. With all due deference to the high mathematical talent which produced the effect upon the committee, and all the chemical and practical knowledge which was there congregated, the fact must be set at rest before Parliament can assert or legislate upon the principle, "that the steam-jet is paramount to all other means of producing ventilation."—*Aug.* 24. —— A Northumberland Viewer.

ACCIDENTS IN COAL MINES—COMMITTEE'S REPORT.

Sir,—My attention has been rivetted upon that passage in the Committee's Report relative to a central board—"Some such central body your committee would strongly recommend, composed of scientific and practical men, to whom the inspectors might report, and from whom they might receive official instructions, which would give greater efficacy to their recommendations. To this board should be given a power to enforce penalties, under ordinary circumstances of neglect; and in cases of death power to facilitate an enforcement of justice to the families of the victims through the ordinary channels of law." Why this would go to diminish, instead of increasing, the powers of inspectors, whilst it rendered them the menials of a board chiefly scientific. I will suppose a case of difficulty to occur with the inspector. He is, I see, to communicate, and obtain his instructions how to act from the board, composed of chemists, scientific physicians, or other philosophers; and how are they to help him? Are they to come and examine his mine, attend the inquest, hear the evidence, and, what next, to supersede the coroner and his jury? Why, if the inspector is a fit man, and is permitted similar powers, this board is needless. Additional powers can be conferred upon the coroner and jury to levy money for the benefit of the survivors; but it must be upon evidence. The inspector ought surely to be able to scrutinise and give evidence without the instruction of the board. Scientific boards are not in such high repute as to induce the Government to depute its powers and prerogatives in any such way. The committee report that the inspectors are ill paid, and their position degraded beneath the level of colliery viewers, who, "in most cases, are on a par, both as to practical and scientific attainments, with the inspector."

With this portion of the report I entirely coincide. If Government is to be represented, these officials ought surely to be placed upon a similar level as Commissioners of Sewers; for not only do they require to be men of great practice and scientific acquirements, but they are exposed to continual danger; whilst upon every trying occasion they are confronted with crack men of their own class, who are brought, *ex parte*, to contend in defence of the owner or manager; and how can they possess sufficient weight and dignity if their remuneration is so miserably small, that they are ever on the look out for some situation which will more amply compensate them?

The Government inspector requires to be possessed of sound practical knowledge to distinguish questions of pure accident from those arising from individual neglect, or from an imperfect system; and his evidence at the inquest is valuable as an indifferent witness. How the board is to help him in these emergencies, I am at a loss to conceive; but epistolary correspondence with scientific boards will lead to nothing but delay and disappointment on the part of the public; whilst it will lower the position of the inspectors, in both their own estimation and that of the colliers.

With regard to granting the inspectors additional powers, the committee seems not to have given expression to their sentiments, because that would disparage the plan of a central board. The Government seems to have taken very little interest in the late inquiry. The official report of the inspectors seems to have avoided any suggestions as to further legislation, inasmuch as their reports were confined to the working of "the Act;" but they ought to have formed important witnesses upon the late occasion, and they ought to be summoned, if the subject is again mooted;—indeed, it is not to be supposed that any legislation will take place upon the report of this committee."—*Aug.* 24. —— A Looker-on.

PREVENTION OF ACCIDENTS IN COAL MINES.

Sir,—Mr. Matthias Dunn, the Government Inspector of Mines for this district, having by a communication in your Journal of the 15th instant called into question the truthfulness of certain resolutions—one of which related to himself, and which were forwarded by me for publication in the *Mining Journal*—wherein I stated that the said resolutions had been forwarded to the parliamentary committee then sitting to investigate the causes of those terrible disasters so frequent in the mines of this country; Mr. Dunn states that he has seen many of the workmen of the collieries referred to, and that they have no knowledge of any such resolutions being agreed to by them. He also publishes a letter from Mr. Cayley, wherein that gentleman states that he has "no recollection of the circumstance," &c. Now, in justice to my own character, and the character of those for whom I act, I solicit the insertion of the following details:—Shortly after the publication of the resolutions, Mr. Dunn called upon me to inquire into the affair; and, as he evidently held the opinion that there was a screw loose somewhere, I distinctly told him that, instead of him supposing there were but a few individuals at the said meeting, there were nearly two-thirds of the workmen of the colliery present, and directed his attention to the chairman of the meeting, &c. He went out to Seaton Delaval, and saw the chairman and the secretary, who both told him that the resolution was agreed to by a large body of the miners, and who would have given him every satisfaction had he been disposed to accept of it. Finding that all the officials of the workmen's society were determined to tell the truth, he writes Mr. Cayley, and obtains the answer furnished by him for publication, and which he feels conscious, no doubt, will serve his purpose.

The first portion of Mr. Dunn's letter states he had "held communication with many of the workmen, which satisfied him that gross misrepresentation existed;" but where are the grounds of the charge? The parties whom he saw, as I have just before stated, gave him a correct representation of the circumstances, and convinced him against his will that all that had been done was done openly and above board; but they say, "Convince a man against his will, and he holds the same opinion still;" and such would seem to be the case in this instance. As further proof that nothing but fair play was intended, the committee of the workmen agreed to convene a full meeting of their body, and sent Mr. Dunn a polite invitation to attend, assuring him they would listen to his explanations and treat him as a gentleman; they also named the time and day, and desired, if not possible for him to attend, that he would inform them of it, and afford them all the satisfaction he could why he could not attend. To this the inspector replied, that he would come to the colliery office on Monday, and talk over the subject, &c.,—the workmen having fixed upon Wednesday, the 11th of August; consequently, Mr. Dunn's visit could not be entertained, inasmuch as the said office would not hold a fourth of the men, whereas the place appointed by the workmen would hold upwards of 300 of them. Mr. Dunn came to the colliery, and saw but a few of the men; but, subsequently, went to the place of meeting, and sent for the secretary, with whom he talked the affair over, and on the 10th wrote to say that he was disappointed in not seeing the assembled men; but that he trusted they would forward to him a communication, commensurate with common justice. The workmen held their meeting on the 11th, and expressed themselves free from all blame in the disappointment experienced by the inspector, seeing they had specified a day, and put themselves to some inconvenience to serve him, and declared that they had taken their stand upon justice and truth, and did not in the least regret what they done in this affair. At the above meeting, the subject of Mr. Cayley's letter to Mr. Dunn was taken up, and the following letter received from that gentleman, acknowledging the receipt of the resolutions, was read:— *Dean's-yard, June*, 1852.

Sir,—I have received the resolutions of the Cramlington colliers. I trust that the report of the committee now sitting will satisfy them that their interests have had our best consideration. I am, Sir, your obedient servant, E. S. Cayley.

The date of Mr. Cayley's letter cannot well be made out, but here we have the fact recorded that the resolutions had been sent to the committee. Hence the seeming contradiction will require explanation; but as Mr. Cayley's letter to Mr. Dunn was written on the 16th July, while that to the miners was written in June, what is more likely than that gentleman, writing from memory, should fail to recollect the circumstance, and write Mr. Dunn accordingly?

Now, we have the whole state of the case, and the truth that such resolutions had been agreed to by the workmen of different collieries is fully made out. First, the workmen having learned that the inspector was doubtful whether any such resolution were adopted, convened a public meeting, to afford him direct satisfaction, and this opportunity the inspector denied himself of; and the men further resolve that they have learnt nothing from Mr. Dunn to alter their opinion in regard to the resolutions in general, and to the one affecting the charge of partiality in the conduct of that gentleman in particular. Secondly, Mr. Cayley's letter to the workmen of Cramlington Colliery proves that I was right when I stated that such resolutions had been agreed to, and forwarded to the committee; so that with all these means of proof my character, as the writer of the paragraph detailing such proceedings, stands unimpeached for correctness and integrity.

How stands it with Mr. Dunn? Having a perfect knowledge of the readiness of the workmen to meet him, and make him understand that there was no conspiracy among a few, as he would insinuate, against him, yet he neglects the opportunity, and in the very same week—perhaps, the same day—he dictates the letter in your last week's Journal, pregnant as it is with the attempt to convey to the public an impression that he was an injured man, and that I had completely misrepresented the case against him in my letter of the 19th June. I leave the result to the judgment of your readers.

Newcastle, August 19. —— Martin Jude.

PREVENTION OF ACCIDENTS IN MINES.

Sir,—In reply to one part of a letter which appeared in the *Mining Journal* of the 31st July, signed "A Durham Viewer," I beg to make a few remarks. That gentleman seems to think very lightly of the efforts making by scientific men to assist those whose interest and duty it is to prevent accidents in coal mines. His letter, although clever and sensible in some respects, is one which I am sorry to have read in the year 1852. It appears to me like an attempt to take a step backward—back to that darkness and ignorance which the *Mining Journal* since its advent has been gradually dispelling.

The time was, Sir, when, if an accident occurred, the poor viewer was sure to be overwhelmed with blame. True, it might be urged in his behalf, that the property of his owner, his own life and character, being at stake, the such considerations were sufficiently powerful to ensure attention to his duty. If any dispassionate person might reason; but the poor people who had lost their relatives by an explosion, in the height of their grief, did not stop to take such a view of the subject, but let loose the vials of their wrath upon the head of the unfortunate viewer. Nor was this unmerited blame the only annoyance he had to endure: after an accident he was sure to be pestered by a multitude of (in many cases) preposterous plans for future prevention; so that, as may be readily supposed, he got heartily tired of any allusion to the subject of accidents, or of any scientific interference.

I have made this rather long digression, to endeavour to explain what I consider the cause of so little having hitherto been accomplished by science assisting practice in the prevention of accidents in coal mines. A better day has dawned, and I would not have troubled you at this length upon the subject of the letter of the "Durham Viewer" but I think it, if unanswered, calculated to do harm, and damp the ardour of those whose only object is the extinction of these terrible accidents. The "Durham Viewer" is probably a young man, and I, therefore, beg to bring under his notice the

opinion of one of the greatest viewers that England ever produced. The late Mr. John Buddle, of Wallsend, in his evidence before the Committee of the House of Commons, on Accidents in Mines, in 1835, made use of these memorable words:—"We have done all we can. I recommend that scientific men should be invited to visit the mines; possibly, by bringing fresh minds to bear upon the subject, some good may result."—R. S. T.: *Belgium, Aug.* 18. ——

MINE VENTILATION.

SIR,—If the following observations will not be trespassing too much on your space, they may not be altogether unproductive of beneficial results, as at this time the question is being agitated as to the best method of ventilating mines.

It appears a proposal to institute a society for the prevention of loss of life by explosions in coal mines is before the public, and in the prospectus some most distressing and appalling facts are set forth. The enormous sacrifice of human life there mentioned, caused by explosions, is most lamentable, besides the heart-rending suffering of the survivors. Looking for a moment at these facts, surely prejudice or self-interest ought not to be allowed to occupy a place so as to prevent the application of a proper remedy for so serious an evil.

A few days ago I was conversing with a gentleman who, I believe, desires the good of, and will do what he can for the cause of, the poor miners. To him I explained my views, and showed a model of a machine, by the use of which a pure atmosphere may be breathed in a coal mine. I was referred by him to Mr. Mather, hon. sec. to the above society; and at the time of showing the model to Mr. Mather, a gentleman (Mr. Cayley) who, I believe, is also interested in the above object, was present, and mentioned certain methods (whether now in use or no I am not aware) by which he thought mines could be effectually ventilated. He mentioned the fan for one, two cylinders for another; a third was Mr. Gurney's plan by the steam-jet, by which he would force into the pit 90,000 feet of atmospheric air per minute. Now, Sir, in order to do a thing effectually and efficiently we must go the right way to work, and not make the difficulty which is opposed to us ten times greater by beginning at the wrong end first, and so be at a great deal of labour to effect that which will do itself by a proper treatment, which I contend would be the case if we force 90,000 feet of air per minute down the pit; but I will dispose of the above methods in the order they were mentioned. The first was the fan. To show the utter uselessness of this instrument for such a purpose, it need only be said that the power it possesses is entirely dependent on the velocity which it can be driven at; and the utmost that can be attained by it would not lift (according to what Mr. Cayley and Mr. Gurney, who was also present, stated to be the weight of gas in the pit to be lifted, namely 20 lbs. to the foot) a quarter of the weight a quarter of the depth of the pit; and if it succeeded in displacing any of the carbonic acid gas at all, its effect could be no other than that of a churn working round and round in the butter-milk, but possessing no power to force it up a tube 100 feet high, much less up a shaft 1000 feet deep: so much for the fan. Next the two cylinders. This is a step in the right direction, and is the only correct principle to be acted on; but I contend that the velocity at which the pistons could be driven would not be sufficient to discharge and keep the pit clear of all the noxious gases as they are produced; if they were, the machinery would soon be shaken to pieces; otherwise the principle is correct. Then, as to Mr. Gurney's plan of forcing 90,000 cubic feet of air per minute into the pit. I think this one simple remark of Mr. Gurney to me at the time above named—viz. that the weight of foul gas to be lifted out of the pit is 20 lbs. to the foot—will show that this method will not accomplish the pure ventilation of a pit, and give the men a comfortable breathing atmosphere, for if (as it is well known that in this point he is correct) the carbonic acid gas is so much heavier than atmospheric air, the 90,000 cubic feet per minute, which is forced into the pit, will not force the other out, but will act like a stream of water running over a bed of mud—the air will float and leave the heavier gas at bottom. Then, if we look a little further, I think it will appear that by forcing this amount of air into the pit without first removing the foul gas, the ventilation will be vastly more difficult. I grant that a portion of the lighter gases may be carried off by the current of air in its passage from one shaft to another, but that a pure atmosphere can be obtained in the pit by this method I deny; and it follows as a matter of course, that the greater the quantity of air forced in, in the first instance, the greater the amount of labour and difficulty to contend with in forcing out the foul gas. As, if this air which is forced down into the pit diffuses itself over the whole pit, some of the gases (there being no abatement in their production) become mixed with it, and the whole atmosphere is contaminated; it, therefore, becomes necessary to discharge this also (and hence the question by Mr. Cayley to me, would my machine discharge, or could I discharge, 90,000 feet a minute? I could if necessary), as well as to lift, as Mr. Gurney mentioned, the weight of a heavier fluid of 20 lbs. per foot, which I maintain cannot be done without some mechanical contrivance.

I would now only mention, that when I explained to these gentlemen my method of ventilating a mine (which is, never to allow an accumulation of foul air, nor to allow a larger quantity of pure air to get mixed with it than can be avoided, as that is a means of diffusing it over the whole pit, but to remove it by my double-actioned mine ventilator as fast as it is produced, and thereby prevent its contaminating more atmospheric air than necessary, which can be done if the tubes connected with the ventilator be properly arranged in the mine, with which, it would be found, we should not be obliged to discharge 90,000 feet of pure air to 1000 of foul), Mr. Cayley assumed that it was absolutely necessary to force into the pit 90,000 feet of pure air per minute. And whilst I freely admit that such a body of air forced in will dilute some of the lighter gases, and in some cases it may render an explosion less liable, I deny that he can give any other than a pregnated atmosphere; and let him force what amount he will in, it will not of itself lift his 20 lbs. to the foot of the heavy gases out of the mine. Nor do I hesitate to affirm that it cannot be done by any means but by a machine by which you can create a vacuum, and which I could not make him comprehend mine would do. I have now much exceeded the limits I at first intended for this letter, but as I have not time to enter into further discussion on the subject, you perhaps will excuse me, in this instance, writing so fully upon it. At the same time, I shall be glad to forward the cause of the miner in any way in my power; and feel assured they have only to adopt the principle I have advanced to obtain a thorough ventilation in every mine, and confer a protection and comfort on the miner he has not hitherto enjoyed, in breathing a pure atmosphere in the mine. S. GORE.

Park-road, Old Kent-road, Aug. 24. ——

MINING ECONOMICS.

SIR,—My attention has of late been drawn to Mr. Abbott's letters on this subject, as also to the remarks of "A Mine Agent" and "Tributer" thereon. Having seen as much of machinery as many, and its beneficial results when brought to the aid of man, I am ready to admit we live in the age of wonders. We see machinery, when practically and scientifically carried out, is almost boundless in reducing manual labour; but all men are not gifted with that intellectual genius to enable them to grasp at every new invention. Amongst the multitude, there is, and ever was, a few that lag behind, keeping the old beaten path—never attempting to find a nearer cut to enable them to keep pace with the "go-a-heads."

Mr. Abbott appears to place the miner with this class; and I agree with him to a certain extent. I have myself practically known mining above 40 years, and am ready to bear him out as to the progress made in the underground department. It is much the same at the present time as it was on the first introduction of powder, with the exception of substituting a tram waggon for the wheelbarrow, and the safety fuse for the straw, or rush.

Surely we are bound to admit that improvements are to be made in this momentous branch, as well as all others. Though I am confident that the majority of the practical miners are clear-sighted intelligent men, who have not imbibed the idea that mining has attained the height of perfection, and are ready to give Mr. Abbott credit for calling attention to this all-important subject, I have not the least doubt but "Tributer" and his accomplice are "wide-a-wakes," not intending to stigmatise, but only endeavouring to draw from Mr. Abbott what he has now promised—his suggestions, how and where to begin. I am aware it is with difficulty that machinery can be brought to bear on all the interior parts of mines, more particularly on lodes, so as to bore out a level at once; but I am inclined to think they could bore by the sides of most lodes, or they could bore small holes in the ground adjoining, leaving 2 or 3 in. between to be knocked out with pokers, what miners term "shulking;" after which larger holes might be bored in or under the lode, as most convenient; and, when blasted, would often move out tons. I see no reason why circular saws, or drills, could not be propelled in levels by manual labour to cut killas rock to aid the miner.

Your readers are aware that holes from 3 to 5 in. can be bored from 300 to 500 ft., or even a 1000 ft. deep, by manual labour. From which it appears evident there can be no difficulty in fixing a steam-engine to bore a perpendicular shaft in our common slate rock, from 4 to 6 ft. in diameter, 50 fms. deep, to meet a lode, in less than one-sixth of the time required to sink it under the present system. In 15 cases out of 20 this would be sufficient to prove lodes. See the advantages to be derived if something of this kind could be carried out, if only for air shafts in coal and other mines.

I have no doubt but portable engines could be obtained from parties to accomplish this at per foot, when a little practical experience will show its efficiency, and whether it should be worked as our jumpers, or as a drill. If the latter, it should be at a slow pace. I find from long practice that saws and drills cut stone best at slow motions: these things require time to bring to perfection. I agree with Mr. Abbott, that it is time for the miner to be up and doing, fearing some "collegian" may take the lead, and place him still further in the background.

In conclusion, I beg to remind the mining public that I am confident they will not put such construction on what I have stated as "Tributer" appears to have done with Mr. Abbott's remarks. Every man accustomed to hewing rock, must be aware that one kind of machinery is not applicable to every lode, strata, or distant level. Let it be first tried on a shaft and cross-cuts, when I shall be deceived if they stop there.

Wiveliscombe, Aug. 24. —— N. ENNOR.

THE MINERS' SPECULATING COMPANY.

SIR,—Agreeable to the instructions of the committee of the Miners' Speculating Company, I left Barnstaple, on the 2d inst., for Wheal Wastor, in the parish of Lamerton, near Tavistock, and arrived on the mine the next morning, when I found that the shaft was cleared up about 10 fms. deep, and a level extended a small distance both east and west on the course of the lode, which is about 5 ft. wide, strongly impregnated with manganese of the richest description, from which several tons of valuable manganese have been raised and dressed by a former party. I also found the levels strongly stained with greens, produced from rich copper ore from a parallel copper lode within a short distance, if not intersecting the same; and on Wednesday, the 4th inst., I set two pitches on tribute, and immediately procured pickaxes, gads, borers, candles, &c., for the tributers to work with, and they set up their tools the same day, and commenced working the next morning (the 5th). I then purchased a small lot of timber, and had it brought to the saw-pit, for the purpose of securing the shaft, &c., and the sawyers were to have cut it on Monday, but, in consequence of the rain, they did not commence until Tuesday, and we have temporally secured the shaft for the time. The tributers are highly pleased with their tribute pitch, and are in expectation of getting a start, as the miners term it. This is a most singular thing to be met with in the annals of mining, that a shaft should be cleared up 10 fms. deep, and two pitches set on tribute immediately, even before the shaft was secured—a fact which will speak for itself.—JOHN HARPER: *Union-street, Barnstaple, Aug.* 16.

CALSTOCK UNITED MINES.

SIR,—Can you kindly furnish me with any intelligence of the mine called Calstock United? They had a meeting sometime in October last, I think, when they declared a dividend of 5s. a share, and gave a glowing account of the brilliant prospects, &c. Meetings, as I understood, were to follow quarterly, at least, unless the ore should accumulate too fast, when, of course, they would be bi-monthly. Have they ever met since? Have they ever submitted any reports? Have they ever raised or sold any ore since the meeting? In fact, is this scheme a mere adventure of the chosen few who managed to issue 50s. shares at 50s. premium, which, having served its purpose, is to be consigned to "the tomb of the Capulets?" I see you have long omitted the mine from your list altogether. I am an unlucky holder of many shares, bought at the aforesaid premium, out of which I have had one dividend, say 10*l.* Your insertion of this endeavour to elucidate the mystery will oblige— INVESTIGATOR.

King's Lynn, Aug. 23.

[ADVERTISEMENT.]

SOUTH AMERICAN MINING COMPANIES. 37

A FEW FACTS WITH REFERENCE TO THE "COLUMBIAN MINING ASSOCIATION," THE "NEW GRANADA," THE "MARMATO GOLD," THE "SANTA ANA," AND THE "MARIQUITA AND NEW GRANADA" COMPANIES."

"Covin doth suffocate right."—LORD COKE.

The Columbian Mining Association started in the year 1824, with a nominal capital of one million sterling, divided into 10,000 shares of 100*l.* each. Of this amount 55*l.* per share was ultimately paid up, and, allowing for large arrears on calls, nearly equalized, however, by the issue of 1530 new shares in 1834, at least half a million sterling has been raised in hard cash for the purposes of the aforesaid association. Its most valuable mines were the silver mines of Santa Ana and La Manta, in the Mariquita district, and the gold mines of Marmato, in the Rega de Supia district; and after working the mines of these districts for eleven years without any profitable results in the shape of dividends, the shareholders seem to have become restive, and would not be wheedled out of further advances of capital; and it was then that certain of the directors ingeniously started a company called the New Granada, and through their influence it was arranged that the Santa Ana and other mines in the Mariquita district should be given up to the "New Granada Company, upon payment of 1000*l.* sterling, together with the value of the stores at the establishment, and a rental of 500*l.* per annum for ten years, if the mines should produce so much profit." And this arrangement came into operation on the 1st of September, 1835. (*Vide* sixteenth Columbian Mining Association's Annual Report.)

I regret that I cannot give any exact summary of the career of *that* New Granada Company. Its capital, however, ultimately all called up, was 20,000*l.*, divided into 2000 shares of 10*l.* each. It worked for many years the Santa Ana Mine, in the Mariquita district, worked out its capital at the same time, paid no dividends, and was wound up in 1848, under circumstances which ought to have been most strictly inquired into. No division has, I believe, been made out of its realised assets.

Subsequently to 1835, the Columbian Mining Association in a great measure confined its mining operations to the gold mines of Marmato, in the Rega de Supia district. It paid a solitary dividend of 10s. per share in 1836; then, like its sister company, gradually getting rid of its cash, wound up its affairs in the same year—viz., 1848—and, according to the directors' report, in a state of semi-insolvency.

In the original directions of the companies in question, there were men of high honour and character; but as they died off, or retired from all active interference in disgust, the management gradually dropped into the hands of a clique. The offices of the Columbian Mining Association were removed to Freeman's-court, and afterwards, with those of the New Granada Company, to Austinfriars, each place consecutively the house of business of one of the directors, who had a branch business house at Bogota, which throughout acted as general agents for the two companies. One secretary, too, was ultimately installed, on the plea of economy, as joint secretary, and then began that system of concealment which every well-conducted foreign mining company invariably avoids, because its only object can be to hoodwink the shareholders as to the real position of their affairs; and there will be found in the *Mining Journal* of 1st May, 1847, a strong, but well written letter, evidently from a shareholder, expressive of great dissatisfaction against the managing board, because it had long ceased to forward to the *Mining Journal*, for publication, the monthly mining reports received from the mine agents abroad.

It has been already stated that the Columbian Mining Association wound up in the year 1848, and the following particulars of the proceedings at the meetings are given *in extenso*, because they have an important bearing upon my subsequent observations.

Extracted from the *Mining Journal* of April 8, 1848:—

COLUMBIAN MINING ASSOCIATION.

"A special general meeting of shareholders was held at the offices, Austinfriars, on Thursday, the 6th inst.,—JOHN DISTON POWLES, Esq., in the chair.

"The Chairman expressed his regret at the necessity the directors felt of calling the present meeting, for the purpose of proposing the dissolution of the association, in consequence of the continued increase of their liabilities, for which alone they (the directors) were responsible, as by their Deed of Settlement they could make no claim on the shareholders, who had all paid up their shares in full, which exonerated them from further liability. They had advanced considerable sums out of their own pockets, and gone on with the concern in hope of better results; but as there were of necessity continual claims for the supply of the mine, as well as the expenses of the establishment in London, although the latter were but small, they did not consider it advisable to proceed further with the adventure; at the same time, they had written out to their agents to see if an arrangement could be come to with parties there to take up the concern, by which they would realise sufficient, he did not doubt, to cover their present liabilities, which were in round numbers 12,652*l.*, and the assets in England amounted to 2600*l.*, besides assets in New Granada. He begged to remark that, in the arrangement with the parties above alluded to, the option would be given to every shareholder to take the same interest in the new concern as they enjoyed in the present company.

"It appeared from a statement read to the meeting of the working of the mine, that from January to May a profit had accrued of 816*l.*8, but that from June to Nov. there had been a loss of 873*l.*7, but the agent held out hopes of better results; at the same time, it was thought advisable to close the concern, and wind up the affairs of the company, which might be accomplished by Midsummer next. A resolution was then unanimously passed, dissolving the company, and authorising the directors to realise the assets and wind up the affairs of the company as soon as possible; after which, thanks having been voted to the chairman and directors, the meeting was adjourned."

From the *Mining Journal* of May 20, 1848:—

COLUMBIAN MINING ASSOCIATION.

"A special general meeting of shareholders was held at the offices, Austinfriars, on Monday, the 15th inst.—JOHN DISTON POWLES, Esq., in the chair.

"Mr. Jones (the secretary) having read the notice convening the meeting,

"The Chairman said the present meeting was called merely to confirm a resolution passed at the special meeting held on the 6th of April, which he read to the meeting, authorising the directors to take such steps as they might think proper for realising the assets with the least possible delay, and to wind up the affairs of the company. He then stated that an agreement had been concluded for the disposal of the property for 6000*l.*, and that every shareholder in the present company had the option of taking the same interest in the new concern, on the payment of 10s. per share, being the amount of the purchase of the mine; and in answer to a shareholder, he (the chairman) said although the purchase money of 6000*l.* would not pay off the liabilities of the company, the directors, who had already made considerable advances, had no intention of calling on the shareholders for any contribution to make up the deficiency.

"The resolution was then put and carried unanimously, when a vote of thanks having been passed to the chairman and directors, the meeting adjourned. The liabilities of the company amount in round numbers to 12,652*l.*, and the assets in England to 2600*l.*, besides those in New Granada."

There are two discrepancies on the face of these statements which must not be passed over unnoticed. At the *first* meeting, the chairman stated "that for the continued increase of the company's liabilities the directors were alone responsible, as by their Deed of Settlement they could make *no* claim on the shareholders, who had all paid up their shares in full." And at the *second* meeting, he asserts "that although the purchase money of 6000*l.* would not pay off the liabilities of the company, the directors, who had already made considerable advances, had no intention of calling on the shareholders for any contribution to make up the deficiency." Now, it is very clear that if the first statement be true, there could be no great merit in the directors not calling upon the shareholders for a contribution. But these and other mere assertions passed unchallenged by the shareholders present, who, evidently sickened by their continuous losses, seem to have taken for granted that the gloomy picture of the state of their adventure, so glibly sketched by their chairman, was a veritable one, and a very few, I believe, availed themselves of the specious offer of being allowed to retain an interest in their own mines upon the further payment of 10s. per share; a select circle, however, including most of the managing directors, knew better, and the funeral dirge had scarcely been chanted over the remains of the unfortunate Columbian Mining Association ere a snug little company was got up by the chairman and his chosen associates, called the Marmato Gold Company. This company started in June, 1848, with the large capital, all paid up, of 6750*l.*, divided into 2700 shares of 2*l.* 10s. per share. It paid, as purchase money to the Columbian Mining Association, 6000*l.*, to enable the latter to discharge its liabilities, or asserted liabilities, and having thus gained possession of the Marmato Gold Mines for 6000*l.*, upon which mines, with their twelve valuable stamping mills and machinery, the Columbian Mining Association had expended 200,000*l.*, the Marmato Company commenced operations with the large working capital of 750*l.*, and with the secretary of the defunct company as its secretary. A sense of policy, or of shame, induced the concoctors of this nice scheme to keep the Marmato shares out of the Official Share Lists given weekly in the *Mining Journal*, and I have looked in vain through that valuable record of the proceedings of mining companies for some information respecting the Marmato Gold Company during the years 1849 and 1850. In the *Mining Journal*, however, of the 28th of June, 1851, I find the following brief history of its progress and prosperity:—

MARMATO GOLD COMPANY.

"At the Marmato Gold Mining Company's meeting, on Monday, the accounts for the three years the company has been in existence were audited and allowed, showing net profits made 8256*l.* 2s. 1d., whereof a dividend of 2700*l.* for the half-year had been paid in January, and the second half, 2700*l.*, was now declared, leaving a cash balance to next account of 2856*l.* 2s. 1d. Capital expended, 6750*l.*, all of which, except 1350*l.*, had been repaid to the shareholders, who would receive a further dividend in January of 1*l.* per share, and in all probability 2*l.* 10s. per annum. Such was the satisfactory nature of their proceedings."

A triennial audit, with three 40 per cent. dividends, and the promise of future dividends at the rate of 100 per cent. per annum, go some way, at least, to point out the true nature of the bargain for, and the sale of, the Marmato Mines in 1848; and from the period of the above favourable report the Marmato shares appear in the Share List, and are generally quoted at a high premium.

The publicity at last given to the affairs of the Marmato Company was, however, well-timed; it paved the way for a very lucrative transfer of its mines to a new company. For by a reference to the advertising columns of the *Times* during the month of April last, it will be seen that a company called the Mariquita and New Granada Company was then started, with a capital of 100,000*l.*, to be increased to 150,000*l.*, in shares of 1*l.* each. Its chief promoters were some of the old hands, who had been directors in the Columbian Mining Association, and in the New Granada Company of 1834, and who were then directors of the Marmato Gold Company, and of the Santa Ana Silver Company; and one of the objects set forth in the specious prospectus is the purchase, from the Marmato Company, of the Marmato Mines. A statement of the cost of, and returns from, these mines from January to December, 1851, is then given, and this shows a nett annual profit of 8343*l.* 6s. 8d., which sum being taken as a basis upon which to value the mines at five years' purchase, the very liberal sum of 41,717*l.*, paid in shares, is given to the Marmato shareholders for their 6750*l.* of original subscription.

So profitable an adventure, which in 3½ years gave back, on a capital of 6750*l.*, above 8000*l.* in dividends, and finished by disposing of the Marmato Mines for 41,717*l.*, must have satisfied all concerned. To be sure, with so small a capital as 6750*l.*, it is just possible that the directors and the shareholders were an identical body, and then we need not much wonder at their good luck; or, perhaps, to be more charitable, as there are tender spots in the most scared consciences—the Arab plunderer, for instance, stops at salt—some tardy feeling that equitable restitution was due to the few old Columbian shareholders, ex the directors, interested in the Marmato Company, may have influenced the liberal arrangement in question.

It has already been stated that the New Granada Company, established in 1834, was wound up in 1848, and the following are the particulars of *that* winding up, extracted from the *Mining Journal* of the 3d of June, 1848.

NEW GRANADA COMPANY.

"A special meeting of shareholders was held at the offices, Austinfriars, on the 2d inst.,

JOHN DISTON POWLES, Esq., in the chair,

"When the Secretary (Mr. L. R. Jones) having read the notice convening the meeting, the Chairman said it would be observed that the meeting had been called for the purpose of authorising the directors to dispose of the property of the company, and to dissolve the same, when a resolution to that effect was passed unanimously, and the meeting separated."

Upon the ruins of the New Granada Company a little pet company, called the Santa Ana Company, was raised. For a comparatively small consideration it had the Santa Ana Silver Mine handed over, upon which mine the Columbian Mining Association and the New Granada Company had together expended 120,000*l.* But so snugly has the Santa Ana Company been managed, that I can learn nothing authentic of the amount of its paid-up capital, or of its proceedings during 1849 and 1850. In the prospectus, however, of the Mariquita and New Granada Company, before referred to, the following facts are allowed to appear—viz., that the Santa Ana Company, from April, 1850, to December, in the same year, cleared a nett profit of 5052*l.* 18s., and this mine is now the property of the Mariquita and New Granada Company, at the price of 35,370*l.*, paid in shares. In fact, the arrangement with respect to the transfer to a new Company of the Santa Ana Mine is in all essentials uncommonly like that which took place a short time previously, with respect to the Marmato Mines.

And here I would remark that the *facile princeps* in the above-mentioned transfers seems to have been Mr. John Diston Powles, an ex-director of the Columbian Mining Association, of the New Granada Company, of the Columbian Agricultural Association, of the Chilian Mining Company, of the Zacatecas Mining Company, and of the Anglo-Mexican Mining Association, all of which companies have shut up shop at an enormous loss to the shareholders. He is also an ex-director in the Marmato Gold Company, and the Santa Ana Company, above referred to; and he is a present director in the following companies:—The Mexican and South American; the Anglo-Mexican Mint; the St. John del Rey; the Mariquita and New Granada; the English and Australian Copper; and the Port Philip; the three last companies having been started since October, 1851.

The Mariquita and New Granada Company is now usually called in the share lists the New Granada Company; why and wherefore are best known to its managing directors. A short time ago its shares were quoted at ¼ discount, and said to be flat at the price. But the public will be much flatter than ever the shares have been if they adventure their surplus cash in a speculation started under such auspices. Even in this world, honesty, in the long run, is the best policy; and that cleverness which is removed from justice is more akin to the short-sighted cunning of the fool than to the wisdom of the wise. "Scientia quæ est remota a justitia, calliditas potius quam sapientia est appellanda."—CHRISTOPHER RICHARDSON: 15, *Charles-street, St. James's.*

LIGUANEA AND GENERAL MINING COMPANY OF JAMAICA.

SIR,—As a shareholder in this company, I attended the half-yearly general meeting, held yesterday, at their offices; and I trust to your impartiality to insert the following brief remarks. The address of the chairman, and the candour evinced by him in admitting the errors, irregularities, and incompetence of the board of directors and their officers, certainly, although not expected, cannot be considered otherwise than satisfactory, if only as evidence that they are conscious of the want of rectitude and ability of the late agents. It is, however, much to be regretted that the board of management have been so supine and inactive as to allow matters to arrive at this point. Mr. Richard Hook, who has visited the property, reported that "he had secured the Riverhead to the company, and he believed it would be a very valuable property. It was *quite as valuable as the Devon Consols*, with this difference, that at the Devon Consols the veins were 12 ft., and at the Riverhead they were 21, and there were four lodes." Now, Sir, such bombast it has not been my lot to hear at any meeting which I have heretofore attended. The Devon Consols have paid in some six or seven years 280,000*l.*; while, according to the comparison made, taking the size of the lode into account, not to advert to the number for its component parts, which is a matter of insignificance, the profits in a like period on the Liguanea should be 490,000*l.*, or nearly 500,000*l.* sterling, although we are at the same time told by the chairman "it was calculated that *within another year* they would arrive at the veins." The "fresh" captain (Mr. Lean) had expressed his opinion "that the *indications* (mark the word, Mr. Editor) were such as in Cornwall would be considered *proofs* of a rich mine." I will not now further trespass on your space; but should you think it right to notice this, I entertain no doubt but some benefit will be attendant. D. G. M.

Cornhill, Aug.

MINING IN CANADA.

SIR,—I was well pleased to see the advertisement in your columns, announcing the return of the agents sent over to examine the Megantic Mines, whose report would appear to be fatal to the undertaking, and which will, I hope, act as a lesson, or beacon, to the English capitalist, not to place implicit confidence in the reports of our American or Canadian visitants. That the specimens shown in London were rich, there can be no doubt; but I have no hesitation in saying that I saw the same some three or four years back in the offices of a highly respectable gentleman in Threadneedle-street, when they were represented as coming from another quarter. They were said to have been sunk in the Thames; but it appears that they managed to get upstairs at Three Kings-court, where, for aught I know, they may be seen and recognised at the present time. Much credit, however, is due to Mr. Truscott, or those who took the thing in hand, to make the inquiry in the first instance, which has, according to your own showing, been attended with a cost of somewhat like 4000*l.* to 5000*l.* (no slight amount), and which might have been beneficially applied in our home mines. My only object in thus writing, is to give credit to the parties for their forethought, although I cannot help saying, I think they have paid full "dear for their whistle."

Royal Exchange, August 26. —— AN OUTSIDER.

MINES IN IRELAND.

SIR,—I am one of my own country, and am well delighted to find that you gentlemen are disposed to put your money under the surface in Ireland, for which, you may depend on't, there will be much to repay you, and encourage your further labours. I am not much used to writing, but I may tell you that Ireland "teems," as they say, with wealth; what I mean is with the copper and the lead underground, which I know full sure would not only give plenty of profit to yourselves, but give us good employ. Thanks to many of the gentlemen, we have got mines to work; but my real belief is this, and that is, if only your monied people on the other side of the water would just look over some of the many parts of Ireland having the metal, they would do themselves good, and no harm to us.—PADDY BRAY: *Kerry, August* 24.

THE SULPHUR TRADE.

SIR,—In answer to the enquiry of "A Constant Reader," in the Journal of the 14th July, I beg to inform him that Wheal Martha, near Camelford, can supply any quantity of mundic that may be wanted, and of an unusual character; and if he will kindly follow up the matter, as his letter seems to imply that he is not unwilling to do, your "Constant Reader," by obtaining a market for their mundic, might be the means of conferring a great benefit on the unfortunate adventurers in that *dormant* company; for, as it still figures in your Share List, we must not call it *defunct*.—G. W. M.

Analysis of average samples of mundic from Great Wheal Martha, near Callington, Cornwall, by Messrs. P. N. Johnson and Co.:—Iron, 27½ per cent.; arsenic, 36½; copper, 2½; cobalt, ½; sulphur, 17; silica, &c., 16 = 100.

WHEAL BAZELY.

SIR,—Having read the remarks of "Investigator" (Tavistock), in your last, respecting Wheal Bazely, I, as agent of the mine, beg to confirm the former reports of this mine, and to say that we have during this week opened the copper lode 65 fms. further west, through which we have driven about 4 ft.; it produces rich gossan, prian, flookan, spar, and mundic. The miners say they never saw a finer lode; and in our next we shall furnish a full report of this copper lode. W. BEDINNER.

Albaston, Calstock, Aug. 26.

THE MEAVY CONSOLS MINE.

SIR,—Having inspected the Meavy Consols Mine, situated in the parish of Meavy, near Tavistock, and having assayed a variety of specimens of the ores, selected from fragments broken from the main lode at the time of inspection, and examined the geology of the sett, and its vicinity, I beg to hand you my observations thereon.

The rock formation consists of a white, red, and a brownish clay-slate, more or less mineralised; near the lodes it is ferruginous, but several fathoms from them it contains less iron and more potash. I mention this because I have found, by analyses, similar results from samples of rocks taken from other valuable copper mining districts. An adit has been driven northernly from a rivulet for a distance of nearly 150 fms., the extreme end of which is about 18 fms. below the surface. In extending this adit four lodes were intersected, and partially wrought on by the late John Williams, Esq., of Scorrier, who, I understand, always entertained the highest opinion of them, and the mine only ceased working at his death. In consequence of the suspension of the workings, a crush has taken place in the adit, so that I could only see one lode. This lode, however, is the principal one, from which about 7 tons of grey copper have been raised and sold. It was explored from a shaft sunk about 11 fms. below the surface. The lode in this shaft, which is laid open to view, is from 10 to 12 ft. wide, traversing nearly east and west, and underlaying north about 3 ft. in a fm. It consists of hard ferruginous quartz, containing rich grey copper, accompanied by peroxide of iron—(see assays at foot). Resting on the lode, and forming its north wall, traverses a vein of felspathic clay, tinged with iron, and containing salts of copper, most probably formed by the decomposition of the sulphuret. This clay, together with the lode, have every appearance of being granitic, which is not usual in such formations; but such lodes do exist, with a similar composition and degree of hardness, which have produced immense quantities of copper ore, and I see no reason why the lode in question should not prove equally as productive. The other three lodes, I have been informed, run nearly parallel with the main lode; they traverse a whitish soft slate, and produce copper pyrites (yellow copper ore), and I have no doubt about this, because, in examining the heaps of refuse at the surface, we found specimens of the ores attached to the slate. The sett is a very interesting one, and is in my opinion well worthy of a sufficient outlay of capital to develope the lodes at a great depth. However, this cannot be done without steam or water-power. Almost every one connected with mining knows the great value of a sufficient supply of water running through a mine. There are but few who know the many evils that almost always arise from an inadequate supply. There is a stream of water supplying a mill on the sett, which might be made available for drawing stuff, crushing, stamping, and pumping water out of the mine; but it is questionable whether there is enough throughout the year or not, especially in a dry season, for the purpose of keeping the mine dry. At present, there is a sufficiency to work a wheel 35 ft. diameter, and from 5 to 6 ft. wide, which sized wheel will, I think, be required to drain the mine to a sufficient depth. The quantity of water running through the sett throughout the year should be ascertained previously to making water courses, or erecting any machinery for pumping. This might be easily done by either watching the movements of the mill wheel, or by measuring the number of gallons of water per minute that flow from it at different times this summer. In the meantime, the ground should be properly levelled, and a plan of it made; also an estimate of the cost of bringing in the water. The cost of water-wheel, and of the horizontal rods be likewise given. I beg also to recommend the following work to be done forthwith, which it will, perhaps, be necessary for me to explain:—First,—The length of the cross-cut from the air shaft to the main lode is 20 fms., whence a level has been driven eastward, partly on the course of the lode, but mostly in the country, for a distance of nearly 90 fms. There are, however, about 40 fms. more to drive to reach the engine-shaft, or the point where the shoot of ore is gone down, the extent of which has not been proved. This level will come under the shaft about 18 fms. deep, leaving about 7 fms. of ground. The ground in the end, I have been told by several persons, is very favourable for driving; but as the deficiency of air precludes the possibility of extending it to the shaft, a small air shaft must necessarily be sunk behind the end, for the purpose of ventilating the workings, and then drive home to the engine-shaft by the side of the lode, cross-cut

the latter, and effect a communication. In all probability, this would lay open a piece of valuable ground—at all events, it would sufficiently develope the lode to place the committee of management in such a position as would justify them in erecting efficient machinery to work the mine on a more extensive scale, or otherwise, as the appearances and prospects then presented themselves. In conclusion, I entertain a very high opinion of this property. It is an exceedingly favourable speculation, the lode being strongly mineralised with rich ore, and the ground contiguous to the walls good for driving, with other facilities in working which is not frequently met with. At foot I beg to give you the results of my examination and assays of the samples taken from the lode.—JOHN PRINCE: *Christow, Aug.* 18.

MEAVY CONSOLS SAMPLES.

No. 1.—Grey copper, associated with hard ferruginous quartz—produce, 51⅛ per cent. of fine copper, and 7 ozs. 10 dwts. 6 grs. of silver in 20 cwts. of the ore.
2.—A similar stone to No. 1—produce, 36 per cent. of copper, and 4 ozs. 3 dwts. 6 grs. of silver in 20 cwts. of the ore.
3.—Hard ferruginous quartz, spotted with grey copper—produce, 5⅜ per cent. of fine copper.
4.—Hard quartz, in which copper cannot be seen without the aid of a glass—2½ per cent. of copper.
5.—Ferruginous slate contiguous to the lode—nil.
6.—Felspathose quartz, forming the walls of the lode—produce, 1⅛ per cent. of copper.
7.—Gossan—produce, no silver or copper, but a trace of gold.
8.—Average produce of the first three samples, 30¾ per cent. of copper.

Assay-office, Aug., 1852. JOHN PRINCE.

THE COST-BOOK MANAGEMENT.

SIR,—It is of vital importance to the interest of mining that, through your Journal, the acknowledged organ of this department of our national industry, public attention should be called to the management of those adventures in which the principles of the Cost-book System are departed from, hazarding thus, unnecessarily, and it is to be feared too often wilfully, the investment of the shareholder. Such irregularity, to use a mild phrase, very naturally induces suspicion and distrust, and people are every day heard to exclaim "Mining is a speculation—a mere lottery!" &c. Find me a ramification of commerce throughout the length and breadth of the land that is not speculative. But what lessens the risk? Why, systematic prudence and integrity, which lead on to fortune, and which are ever-preponderating elements in the basis of the most successful enterprise. By these essentials the bi-monthly auditing of accounts in cost-book companies is indicated, and any departure from the regulation so laid down is a breach of the original contract between the company and the public, and a direct fraud upon every person who has been induced upon such promises to purchase a single share in the undertaking.

Do shareholders who hold in such defaulting adventures know that any one of them can call by advertisement a public meeting of the whole body, to compel the purser to exhibit the cost-book, and give an account of his stewardship? And it has become a legal question whether any person taking upon himself the office of purser cannot be made amenable to civil law for not giving monthly or bi-montly notice to each and every of the shareholders, and convening a meeting for the due arrangement of the affairs of the mine of the finance of which he has been appointed dispenser.

Again, the purser should be a responsible, a really responsible person, not as in instances I could mention, a mere creature of one or more of the original holders. "A word to the wise," &c. I shall return to this subject again, Mr. Editor, and enter more deeply into an exposition of the evils which spring from the mismanagement of cost-book companies. I may also be tempted to lift the veil, and give you a list of mines which are not conducted on the principle guaranteed by their prospectuses, thus causing not only detriment to a large section of the community, but impressing on the public mind a false and very erroneous opinion of mining in general. A word anon concerning the formation of London companies, foreign, and domestic.

City, Aug. 27. THE GNOME.

GREAT CRINNIS MINE.

SIR,—Allow me, through the medium of your valuable Journal, to tender my thanks to "Argus" for the statistical account of the sales which took place in this mine from 1815 to 1829; at the same time, I think he is in duty bound to obtain and circulate, for the information of the public, the precise amount of the sales which took place from 1808 to 1815, as it is a well-known fact that the first portion, which is left out by "Argus," was the most productive time, ranging about 100,000*l.* per annum, and then, I have no doubt, the matter will appear much more interesting than at present. I consider the remarks are anything but prudent, when only a section of the working account is given in a public journal, and more especially when it must be known to "Argus" that, during the period alluded to, the affairs of the mine were being managed by the lawyers; but even the last year's working shows a good state of things. I enclose a plan and sections of the workings, to show what is meant by only a small portion of the central lode, which has been worked away, and beg to refer "Argus" to the report of Capt. Peter Clymo, which appears in the prespectus. Then I consider it a further duty on the part of "Argus" to harmonise, if possible, the following sentences. In alluding to the intended workings, he says—"They will not find it pay cost;" and then, as if he would have the public think him serious, and having done with all joking, he says—"Divested of these statements, allow me to record my firm opinion that Great Crinnis Mine, with ample capital, good management, &c., will some day prove as good a mine as ever, and, if so, no one will more warmly congratulate them than 'Argus.'"—*Aug.* 26. VERITAS.

THE ROUGHTENGILL SILVER-LEAD MINES (Cumberland) are situated near the Caldbeck Fells, at the head of a deep and narrow valley, thus enabling the lodes to be wrought by adit levels to 100 fms. deep, which is one of the vast number of advantages possessed by the party now working the ground advantageously, and, as reported by Mr. Arthur Dean, the mining engineer, "the mines are now in a self-supporting state—likely to be very profitable for many years to come." There is an abundant supply of top water, sufficient to drive any machinery, either for pumping, drawing, or crushing. The three lodes already wrought upon are the north and south Roughtengill and the Silvergill veins, there being numerous others of considerable importance remaining wholly unworked—in fact, in virgin ground. The Silvergill is on the west side of the valley, and the lode at a remote period has been worked on at 8, 20, and 50 fms. deep, yielding vast quantities of lead ore, containing from 30 to 60 ozs. of silver in the ton; the lode is from 3 to 12 ft. wide—all the shoots of ore dip westward. As yet they have not been met with in the 20 or 50; the 20 is now within a short distance, and the 50 about 60 fms. behind. These levels are likely to prove equally as productive, and by miners of practical judgment are pronounced no speculation, but a certainty; at all events, the expense necessary to develope them is very moderate, considering the vast advantages likely to accrue at an early period, when the rich shoot of ore is intersected in the 20, by which time the 50 will have further advanced onward. Other shoots have been met with, and are still in advance of the 50 end west, which has been driven through one 30 fms. long, and being entirely unwrought in the back and bottom, will, as soon as the stamping machinery is completed, return a vast quantity of ore. The 90 cross-cut south has intersected the Silvergill and south Roughtengill veins 100 fathoms long, without requiring any machinery to draw the water. This increased depth will shortly enable them to lay open orey ground, likely to take years to work away; the Silvergill would in itself constitute a very important concern. About 50 fms. west of the shallow levels a large copper vein intersects the lead lode, and at deeper levels important results may be confidently expected, for wherever the like junction has been met with, the copper has been extremely rich, and an increased quantity of lead found in the lode. The Roughtengill lode is working in the 60, and has been extended on the west 200 fms., 120 of which are through a very fine lode, immense in size, and rich in quality; 20 tons of phosphate of lead have been broken by tributers in the back very recently: very little exploration has been as yet made there, and none below. A caunter falls into the south vein, and enriches it with blue and carbonate of lead, improving the quality of it as it descends; from this shoot alone many thousand pounds worth of ore has been sold by the present proprietors. This orey ground between the 60 and 70 is being stoped away; the 70 cast is extending to meet other shoots discovered in the level above. The 90 west is driving with all speed, and is 30 fms. distant from the 60 workings; this level will lay open a vast extent of mineral ground, expected to realise profits for many years to come; when it has reached the shaft it will both drain and ventilate the mine. Nearly all the ore raised by the present proprietors has been from the south Roughtengill vein: between April, 1849, and July, 1852, about 8000*l.* worth, of which 6605*l.* has been disposed of, the balance remaining in store upon the mine. For the last 13 months the average returns have been 400*l.* per month; they calculate to realise that amount of profit as soon as the surface machinery is put in proper order. Several thousand pounds have been expended in erecting a complete smelting-house establishment, capable of smelting 100 tons a month, so that the works have been well-planed, and in a workman-like manner. The whole of this valuable property is held under lease from Earl Pomfret and others (18 years unexpired), and extends for two miles long by one broad. Specimens of the rich ores from this highly promising concern may be seen at the offices of Mr. FOX, No. 7, George-yard, Lombard-street, broken by himself upon the mine and brought to town by him, where we have inspected them; and, as the shares are being freely taken by parties of high respectability, we expect at no distant period finding the Roughtenhill Mine occupying a very high position in the mining world, and amply repaying the shareholders for the capital expended.

THE ELECTRIC TELEGRAPH.—The first of a course of three lectures on the Principles and Practical Use of the Electric Telegraph, by Edmund Wheeler, C.E., was delivered at the Society for the Diffusion of Useful Knowledge, Greenwich, on Tuesday last. The lecturer introduced his subject with a sketch of the old plans of telegraphing from the invention of Dr. Hooke, in the *Philosophical Transactions*, 1684, down to the *Semaphore* of Sir Home Popham, in 1816, which was retained in this country until superseded by the electric telegraph. The foregoing part of the lecture was illustrated by a series of large and clearly-executed diagrams. Mr. Wheeler then explained the distinguishing characteristics of frictional and voltaic electricity, stating the advantages derived in telegraphic practice from the exclusive use of voltaic power. The discovery of the deflection of the magnetic needle (by Oersted, of Copenhagen, in 1819) when an electric current passes over it, has formed the practical basis of a numerous class of telegraphic instruments. The results of such electric agency were shown by some elegant and successful experiments upon delicately poised magnetic needles, and ultimately the practical application of the arrangement for the transmission of information to distant parts was elucidated by a pair of large double needle instruments, made expressly for the purpose. The usual alphabetic system, and some codes of private signals, were thus exhibited, to the evident satisfaction and gratification of the audience. Various plans were described for the insulation of the wires supported on the posts, as well as the use of gutta percha as a non-electric coating for wires laid underground, or traversing tunnels. The detailed syllabuses of the succeeding lectures promise matter of great interest and importance to every Englishman, and it can hardly be doubted that the members of the Institution will appreciate the opportunity of so easily becoming acquainted with one of the wonders of the age—one of the greatest triumphs of modern science.

THE GWENDRAETH COLLIERY INUNDATION.—Nothing has yet transpired which can in any way account for the sudden eruption of water into the Gwendraeth Collieries in Carmarthenshire, the inundation of which caused the frightful catastrophe by which 26 lives were lost. The general opinion is that the irruption came from a stratum of sand, and did not flow from any of the workings, as was at first imagined. Mr. Mackworth, the Government Inspector of Mines and Collieries for the district, has been actively occupied in searching into the cause of the disaster. Hitherto only one of the bodies has been recovered: this poor man, David Jones, was the person who endeavoured to climb and escape by the girders at the same moment as his more fortunate companion, who succeeded in doing so; but he was overpowered by the fearful rush of water, and, his strength failing him, he lost his hold and was swept down and buried in the water and the earth which came with it. The body was very much mutilated.

Meetings of Mining Companies.

LIGUANEA AND GENERAL MINING COMPANY OF JAMAICA.

The half-yearly general meeting of shareholders was held at their offices, Moorgate-street, on Thursday, the 26th inst., for the purpose of receiving the report of the directors, and electing a director, in the room of James Lamb, Esq., resigned.

W. PRINSEP, Esq. (chairman of the board of directors), in the chair.

The CHAIRMAN said, when he first took part in the management of the affairs of the company, it certainly did not present so favourable an appearance as at the present moment. Their captain sent them reports, made almost without examination. Mr. Richard Hook, who had been sent to Jamaica, at once dismissed him, which had led to legal questions, which, however, he was happy to say, had been satisfactorily settled. Several other persons who were found to be inefficient, had been dismissed; and they had now a fresh captain (Mr. Lean), who reported that the indications in their mine at Friendship's Retreat were such as in Cornwall would be considered proofs of a rich mine. When Mr. Hook was at Jamaica, he discovered indications at River Head, about six miles from Friendship's Retreat. Mr. Hook considered the indications as good as the Devon Consols; and it was calculated that at an early period they would arrive at the veins. They possessed funds for carrying out the present workings, which funds had been invested by the former directors, perhaps not in quite a regular way, but perfectly safe. Mr. Hook thought it requisite to have a resident director: the directors coincided in that suggestion, and recommended Mr. J. Taylor.—He then moved that the report be adopted.

Mr. MARTIN having seconded the motion, Mr. R. HOOK said he had secured the River Head, which he believed would be a very valuable property. Capt. Lean had reported that the indications much resembled those of Devon Consols, with a rise of ground for ¾ of a mile, precisely similar in appearance. His opinion was that it had not been exaggerated, as to the value or prospects presented by the mine. As regards the Annatto Bay Mining Company, six miles distant from Friendship, it was on the same line of country, and evidenced similar indications. There could, indeed, be no doubt but that it was quite as valuable as the Devon Consols, with this difference, that at the Devon Consols the veins were 12 ft., and at the River Head they were 21, and there were four lodes. Since his return, he had been to Cornwall and engaged four men, who would go out by the next packet. This mine, however, like all others, would require capital, time, and perseverance to win it.

The motion having been carried, the CHAIRMAN moved that Mr. John Taylor, of Good Hope, Jamaica, be appointed resident director, with a salary not exceeding 300*l.* a year, including any contribution that may be made by the Annatto Bay Company.—Mr. SWABEY having seconded the motion, it was passed unanimously.

A lengthened conversation ensued as to the auditor's report for 15 months, in which he had reported that 1000 shares allotted to the original projector of the company, had been so done without consideration, and recommending the disallowance of 500*l.* paid to Mr. Martin for his expenses, and as a remuneration to inspect the mines.—Eventually, the reports and accounts were agreed to.

Mr. VINING moved that the directors be requested to consider a scheme for amalgamating with the Annatto Bay Company, and report to a special meeting of the shareholders, which, being seconded, the motion was agreed to.

Votes of thanks having been given to Mr. R. Hook, and to the chairman and directors, the meeting separated.

GREAT BRYN MINING COMPANY.

At a general meeting of shareholders, held at the offices of the company, King William-street, on Thursday, the 26th inst.

W. GARNER, Esq., in the chair.

The CHAIRMAN read over the notice convening the meeting, together with the minutes of the committee meeting held on June 11, the special general meeting of June 14, and the committee meetings of Aug. 4 and 5; all of which were duly confirmed. He then expressed his regret at the delay that had taken place as regarded the supply of a boiler for the steam-engine now being erected upon the mine; especially as, by the report just received from the agents, the engine-shaft could not be sunk any deeper until steam-power enabled them to master the water. As the report he would request the secretary to read so fully entered into the subject, and embraced the facts contained in the report of Captains Kernick and Webb, he would offer no further preamble, but await any comments the shareholders might have to offer, and he should then be happy to answer any questions they might please to put to him.

Mr. LELEAN (the secretary) then read the following report:—

Aug. 26.—The committee had hoped to be able to report to the present meeting of shareholders, not only the completion of the machinery on the Great Bryn, but the sale of some considerable quantity of tinstuff, but the delay that has occurred in the completion of the boiler has postponed that desirable consummation. It was stated in the report made to the meeting held on the 3d of June, that a contract had been entered into with Mr. Morris, of Upper Thames-street, for a boiler. The committee believed they might anticipate the completion of all the works on the mine in the month of July, and that from that time the operations of mining and crushing would be carried on with vigour. The time having elapsed for the completion of Mr. Morris's contract, and being unable to obtain any satisfactory information as to its progress, Mr. Lelean went down to Devonport, and there ascertained that the boiler had not been put in hand. Without any delay he proceeded on to Charlestown, and entered into a contract with Mr. Thomas for an 8-ton boiler, to be delivered on the mine for the sum of 157*l.* 16s. 6d.—14*l.* 10s. 6d. less than the 5½-ton boiler, to have been delivered by Mr. Morris. On his return to London, a meeting of the committee was called, which took place on the 4th August; and Mr. Lelean made such a statement to the committee of the non-fulfilment of Mr. Morris's contract that they adjourned to the following day—Mr. Lelean being instructed to request Mr. Morris's attendance, in order that some explanation might be elicited of the cause of the disappointment sustained. Mr. Morris attended the adjourned meeting, and rendered such an explanation to the committee as showed that he had himself been misled and deceived by the firm which undertook for him the construction of the boiler; the committee, after due deliberation, resolved to serve a notice upon Mr. Morris, to the effect that they held him responsible for any damage that might be sustained by the shareholders in consequence of the failure of his contract, and expressed their entire approbation of the course that had been adopted by Mr. Lelean. A full report of Mr. Lelean's statement, and of Mr. Morris's explanation, has been entered in the Cost-book. In a letter received from Mr. Thomas, dated August 21, containing a specification of the boiler and furniture, he expressed his belief that all will be completed in four or five weeks. This statement will have suggested to the shareholders that the committee have little to add to what was stated in the last report, relative to the condition and prospects of this mine. In a letter received from Capts. Webb and Kernick, on the 24th inst., they stated that on the preceding day they had carefully inspected the mine, and could report everything as being satisfactory. The engine-shaft had been sunk 6 fms. 1 ft. below the deep adit, and at the present bottom they found a branch intersected, which had so materially increased the water, as to render it impracticable to sink any deeper until after the engine is gone to work. The ground in the bottom of the shaft is of the most favourable character, and they had intersected the caunter lode in driving east in the deep adit; it was found to be 12 in. wide, composed of peach, spar, and flookan, with copper and mundic disseminated throughout, and is embedded in a fine stratum of light killas. They pronounce it to be a copper lode of great promise to make copper in depth; its inclination towards the shaft is also a favourable circumstance, as in the deeper levels the cross-cuts can be driven on the caunter lode in this part of the mine. The engine is being put up with all practicable dispatch, and they express a hope that if the boiler is completed in due time they shall have everything in working order in five weeks from this time. In sinking on the lode in Little Bryn, they find it to be 4 ft. wide, composed of spar, mundic, having portions of copper disseminated; and they state their belief that by extending the adit west on this lode they shall open a valuable piece of ground in western hill. On the whole, the captains state that the excavations made on the property have so developed the lodes as to satisfy them that Great Bryn will prove a profitable and a lasting mine. The committee believing that no further delay is likely to occur, confidently anticipate that at the close of the next two months they will have a still more gratifying report to make to the shareholders. The committee having been instructed at the last meeting held here to issue an additional 250 shares, for the amalgamation of the Little Bryn with the Great Bryn, they submit that they should be now authorised to call in the old certificates, and to issue new ones, bearing on their face the division of the mine into 6750 parts, instead of 6500. The expenditure, up to the present time, has been 2600*l.* 0s. 9d., leaving a balance in hand of 899*l.* 19s. 3d.

Mr. HENDERSON (one of the committee) had taken great pains to watch the progress making; he had been several times upon the mine, where, and around the neighbourhood, to his own knowledge, the general impression was it would make a good profitable and lasting mine, and offer a better return for the money invested than any other. He wished to know if a regular contract had been entered into with Mr. James Thomas, of the Charlestown Foundry, for the boiler and pitwork, and if his offer to supply the necessary articles had been duly accepted?

Mr. LELEAN produced the contract, and certified that he had accepted it.

Mr. HENRY MOLYNEUX gave Mr. Lelean great credit for the promptness with which he had acted, the energy he had displayed, and the judgment he had exhibited in the matter, which entitled him to the thanks of all concerned. He would, therefore, propose that the report now read be received and adopted.

Mr. JAMES WILLIAMSON expressed the great pleasure he felt in seconding the same, and it was carried unanimously.

The CHAIRMAN having declared the business of the meeting terminated, assured the shareholders that no time would be lost in calling in the present scrip of 6500 shares, in order that new shares might be issued for the existing number of 6750; and he hoped, at the next general meeting, to be enabled to report the engine at work, and a good batch of tin sold.

It was then moved by Prof. WHITE, seconded by Mr. STEELE, that the thanks of the meeting be given to the chairman and directors of the company for their past services, and especially to Mr Lelean, for the able and energetic manner in which he conducted the negociation relative to the purchase of the boiler.—The meeting then separated, highly pleased with the present appearances of the mine, and fully satisfied with the prospects held out, of a speedy and liberal dividend being declared.

THE "BATH BRICK."—The material used for cleaning and polishing metal goods, &c., known by the name of "Bath brick," is manufactured at Bridgwater, from the tidal deposit of the river Parret; and although many attempts have been made to produce a similar article, we believe they have all hitherto failed. This material is a peculiar mixture of fine silicious sand and clay, brought up by the tide, which is very strong in the Parret, and is deposited on the sides of the river's banks, as the water becomes still, just before the time of its ebbing, and some little time afterwards. It is probable that the finest silicious particles are derived from the destruction of infusorial animalcules at the meeting of the tide with the fresh water of the river; and it is not unlikely that a somewhat similar if not identical product might be obtained from the mud accumulating at the mouth of the Elbe and other rivers where such causes are known to act.

SILVER MINES IN SOUTH AMERICA.

A gentleman visiting the San Antonio mines, 150 miles from Caldera gives the following interesting narrative:—

The mines are vastly different from anything I had conceived. For three hours I was led by one of the captains of the miners through horizontal shafts, around vast chambers, along winding galleries, down steep drifts, up crooked staircases cut in the rock, backwards, forwards, to the right, to the left, and in every direction, until I became completely bewildered, and should never have been able to find my way out again had I been left to my own guidance. Whenever we came to a large chamber, there we were told had been great wealth in silver. In one chamber they told me a million and a quarter of dollars worth of silver ore had been taken out. They gave me a hammer, and told me to crack off a piece to carry home. One of these days I will send you the result of my knowledge of the use of a big hammer. The loud reports of blasting going on in different parts of the mine were terrific, and the appearance of the miners, half-naked, driving away at the solid stone, was a sight. The natives carrying out the ores and refuse in hide bags on their back, and up steep, crooked shafts 300 feet deep, gives one an idea of labour only to be found in a place like this.

After spending three hours in this great mine, which has been worked for twenty-two years, I came out at the top of the mountain, having gone in at the base. Taking a few moments to breathe, we commenced the descent of another mine, belonging to Don Bernado, which is close to the first, and from which they are now getting much rich ore; and when we came out we were tired enough, I assure you. When we arrived, we found the cook and steward of the establishment drunk and in bed. This being Carnival week, most of the natives are enjoying it. You can imagine the wealth of this mine, which is located in a narrow steep ravine, about one mile from the river valley, when I tell you there is a village of some size at the mouth of the ravine, occupied by Peons, and the natives of the country, which has been built up and entirely supported for years by the stealings of persons employed in the mine. I suppose that one-tenth of the rich ore is stolen: there is not a native miner in Chili who will not steal if he has a chance, and boast of it afterwards. When the mines are rich, the owners employ a foreman for each miner, to overlook him while mining; but I am told that the foremen are as bad as the men; there is no dependence to be placed on any of them. The owners seldom go near the mines, and when they do they rarely go into them. Don Bernado has owned the mine for eight years, having given for it $100,000, but has never been into it, except just a few feet at the lower entrance. He owns large shares in many other mines at Chanorcello and Tres Puntas, one to the north and the other to the south of this place, both of which I have promised him to go and see. He wishes me to become an owner in the mines, and offered to give me shares in his mines if I will only stay in the country; but I tell him I cannot stay, and have no taste for mining. He gives me a fine specimen of silver ore every time I see him. His family live in great style in Lima, and his possessions are immense. Besides his Peruvian mines and estates, he has also two large handsome houses in Copiapo, one large silver ore mill in Copiapo, two estates in the valley above Copiapo, on each of which there are extensive silver ore mills, and how many mines he owns in this region I cannot tell: every day I hear of a new mine which he has an interest in. He is a tall, handsome, gentlemanly person, with an unmistakeable air of refinement about him, and is strongly impressed with the idea that no one but himself knows how to make coffee or chocolate, or to boil eggs; he certainly makes the best I ever drank. Some time since he sent me a bag of the celebrated Unga coffee, grown in the interior of Peru; he tells me he will get another sack of better coffee, and also a box of the best chocolate, for me to send home in his name. He is the kindest-hearted and most generously-disposed man I ever met with; but he will gamble and attend cock-fights, which seems to be the universal custom of the country. In some of the mines they are cutting out pure silver, from veins 6, 8, and 10 inches thick. At Chanorcello there are about 300 mines in one mountain, which, at a distance, is said to resemble a huge ant-hill: there are more than 3000 men burrowing on it all the time, night and day. There is no water within 15 miles, and it costs 600 dollars a day to supply the miners with water, and everything else in proportion; and yet the miners tell me, when the mines are rich they laugh at all expense. We have a long ride to take by moonlight to the place we came from this morning, 40 miles distant. At this place we are about 5000 feet above the sea, and the air is very light and enervating. People in this country eat fruit all day, besides devouring a multitude of meats. Early each morning we take coffee or chocolate; at 10 A.M. we have breakfast, commencing with soups, which is called casonella, the rest like our dinner, except dessert; at 1 P.M. we sit down to a lunch of fruit, embracing all the kinds you have at home, in the greatest abundance, and very fine, besides all the different kinds of the torrid zone, by every steamer. You would be astonished to see the white grapes, which grow in large and solid bunches: one kind of purple grape grows as large as a green-gage or bantam's egg. I have seen bunches of them so large, that no two famished gourmands could eat one. The price of all fruit is high; the ground they grow in is all irrigated. It is good, therefore, to have friends with extensive gardens.

BOTALLACK MINE (St. Just).—The Royal French party visited this famous mine, a few days since, and went underground, where they remained some hours: they enquired minutely into the various operations connected with mining, and amused themselves by breaking the copper ore, hauling the winzes, &c.—the Prince de Joinville exhibiting great spirit and intelligence. On leaving they gave a handsome gratuity to be divided amongst the agents and men.—*Cornish Telegraph.*

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—In driving north in the 100 fm. level, east of Field's engine-shaft, we have not yet reached the north or main part of the lode, as was expected last week, but we think, without doubt, it will be so in the present week. The lode in the level driving west from No. 1 winze is quite equal to the last report—viz., 100*l.* per fm.; here the water is not quite so much; we shall now resume the sinking of this winze. The lode in No. 2 winze, sinking under the 90 fm. level, is about 3 ft. wide, worth for copper ore from 30*l.* to 40*l.* per fm. The lode in the stopes over the 90 fm. level, east of this shaft, is quite equal to the last report. The lode in the 100 fm. level, west of Wyld's shaft, is worth for copper ore from 15*l.* to 20*l.* per fm. There is no change to notice in the western ground since the last report. In our driving south from this shaft, in the 80 fm. level, we have cut a little water, which, we think, indicates the lode being near us. The new shaft is communicated to the 10 fm. level. We think in about a week from this time we shall be in a position to commence sinking under the 10 fm. level on the course of the lode.

APPLEDORE.—Our operations are confined to driving the 38 fathom level north on the eastern branch; this branch is 1 ft. wide, composed of spar, mundic, prian, and flookan; there is no doubt of its being a part of the lode seen in the 20. In the 20 fm. level north the branch is 15 inches wide, formed of the same component parts. The ground is still favourable, and a slide is crossing the lode at the 38 fm., which is certainly no bad omen. Our water is very much increased, and now working at the rate of 12 strokes per minute.

AUGUSTA CONSOLS.—Since my last report we have sunk the winze 5 fms., the lode in which is of the most promising character, being composed of peach, prian, gossan, mundic, and rich yellow ore. There is a leader on the north part 9 in. wide, all saving work, and the deeper we sink the better and larger it gets; the fact is, everything here in going down indicates a good lode of ore near at hand. The lode is 30° south of east, and the north wall is going down almost perpendicular. The level on the cross-course is now cleared 110 fms. to the end, and have let this to drive by six men for a month, during which we expect to cut the main lode. Our prospects are of the most encouraging description, and will warrant the company in erecting any amount of machinery; and we find we have sufficient water-power to command a 50-ft. wheel of 4 ft. breast, if required, the whole cost of which will not exceed 800*l.*

BICTON CONSOLS.—The deputation reported that they had visited the mine; that the machinery worked well; that the ends of the 14 fm. level had been suspended until the winze to the 34 was completed for ventilation; that the shaft had been cleared up and secured to the 34 fm. level, but the plat not having been completed to receive the stuff, it was not yet possible to drive that level; this will be completed in a week. Capts. Kemp and Taylor concur with Capt. Dunstan that the 14 and 34 fm. levels be driven with all possible dispatch north and south, it being their opinion that in laying open the ground, which is very inexpensive, large quantities of lead would be discovered. They also urged the driving a cross-cut east from the 34 fm. level to intersect the parallel lodes, giving as their reason for so doing that the district was good and the stratum congenial for ore. Capt. Kemp, in particular, gave it as his opinion that ground similar to that already driven through would, if the mine were prosecuted vigorously, pay the working cost. It is consequent on these facts that nothing can be added to the last report, the shaft having gone down in the country (not on the course of the lode), and nothing further done to lay open the lodes. The available funds amount to about 2300*l.* It was resolved that the work so recommended be commenced and prosecuted with all possible dispatch.

BISHOPSTOWE.—We are driving north on the east lode from the cross adit, with a fine course of ore all the way, worth 30 cwts. per fathom—cost for driving 25*s.*; a large pile of fine ore is collected, although we are only taking down as much as is necessary to clear the end, leaving the side standing. We have costeaned the east lode, as advised by Mr. Arthur Dean, to the north of the hard ground, and found the ore making immediately beneath the surface; another pit has been put down, some 20 fms. north, with the same result. On Saturday last we found that the western lode, which appears in the quarry behind the engine-house, continues also up the valley, running 5° west of north, all the lodes converging to form a junction some 100 fathoms further north up the valley. Mr. Dean's report will be published in the next Journal, preparatory to the general meeting to be held about 10 days hence.

BLACK CRAIG.—The blackstone in the 40 end west has changed in appearance, and become much softer the last day or two. The pitches in the back of the 40 west are looking well for lead. The men in the cross-cut south, in the 25 fm. level east, have got through the blackstone into the rider ground. The shaftmen have secured Welsh shaft nearly to the 7 fm. level, and hope soon to get through with all the repairs required. The other pitches and bargains are much as last reported.

BLAEN CAYLEN.—The engine-shaft is now down about 12 fms., and improves every fathom we sink, and the yield quite 15 cwts. per fm. The adit level is now driven 19 fathoms 2 feet, and I expect we shall cut the lode therein within three months from this date.

BORINGDON PARK.—Murchison's shaft is about 8 fms. below the 15 fm. level. We are still breaking some good work from the part of the lode that is in the shaft, and which is looking more promising than in my last. In the 15 fathom level going east there is no material alteration to notice; going west, we are still laying open some tribute ground. I have set two men to drive on one of our south branches in the 15 fathom level, the month out, at 20*s.* per fathom, which branch is good saving work.

BOSCARNE.—The engine-shaft is sunk below the 30 fm. level 5½ fms., and the ground is more favourable for sinking; the ground is deeply tinged with carbonate of copper, and with spots and strings, or veins, of yellow ore. On Saturday last, as occasion required, we looked at the top clack of the tie-lift (plunger-lift), and found precipitated copper collected on the top of the valve, which clearly proves how strongly the water is impregnated with copper, and no stronger evidence can exist of a large deposit of mineral underneath. At Dunmere adit we are driving about 6 fms. a month; the stratum, both in the engine-shaft and Dunmere adit is precisely the same as where mineral exists in most of the great mines in the county, and every indication conducive to mineral is evident in our daily operations. Looking at the great advantage, with the lode making such a mass of gossan impregnated with copper, mundic, peach, &c., on the top of such a hill, or mountain, as Dunmere, there is no doubt of meeting with a large body of ore at the depth the present level will intersect the lode—viz., between 40 and 50 fms. from surface.

BRIDFORD CONSOLS.—The adit level, after being extended on the lode north for several fathoms (indeed, as far as I should recommend), is suspended; the lode is of great width, and contains a fine gossan, similar in every respect to Wheals Adams and Exmouth, and cannot fail in depth to produce a quantity of lead. The best situation for a permanent engine-shaft is selected, and the shaft sunk below the surface about 5 fathoms, in favourable ground. The adit level at this point is about 10 fms. deep, and should the ground in the shaft continue favourable it will be completed to that depth in six weeks; but to go much deeper I think the engine will be required to take off the water. The foundation of the engine-house is taken out, and the mason work set to build. A smithery, material-room, and office, are in course of erection, and will be completed as soon as possible. The engine-house should be commenced at once, as not only the best season of the year for this work will soon be gone, but a delay in sinking the shaft occasioned; my idea is to do as much as can be done in the least possible time, keeping economy in view, as time in mining is money. I have a high opinion of this sett, and will do my utmost to prove it for the least amount of money, provided you allow me to exercise my judgment.

CALLINGTON.—At the south mine, the lode in the 125 end north is 1 ft. 8 in. wide, saving work. We have not pricked into the lode in the incline shaft since last reported on; we have been engaged fixing stands and laying down railroad, preparing to draw the stuff from this shaft by the south steam-whim. At the north mine, we have intersected the cross-course in the 20 end west, on No. 1 copper lode; the lode to the west of it is 2 ft. wide, composed of spar, mundic, and copper ore of very good quality—a very kindly lode indeed. At Kelly Bray, no lode has been taken down in the 70 end east since last reported on. The lode in the 60 end, east of great cross-course, is 3 ft. wide, composed of fluor-spar, blende, mundic, and copper ore, yielding 1½ ton of the latter per fm. We are progressing very favourably with the stoping down of Kelly Bray shaft. We have intersected the lode in the 50 cross-cut south, which is 1 ft. wide, composed of spar, blende, and copper ore of good quality: we have commenced driving east on the course of the lode. We are getting on very favourably with the drawing up of the materials at the north mine, and hope to get them all to surface in three weeks more, ready for sale. The tribute department is much as usual. We sampled on Saturday last, the 21st inst., a parcel of silver-lead ore, computed 30 tons, samples of which have been sent to the different smelters. We intend sampling a parcel of copper ore at Cotehill Quay on Friday, the 27th inst., for public ticketing.

CARADON WOOD.—We have cut through the lode in the south end, and find it to be about 7 feet wide; there is a little lode on the eastern part of it, and I expect to see it increase as we drive on it. We have continued driving east, this being the place we intend to drive a cross-cut to intersect the eastern lodes. We have driven west of the shaft about 3 fms., and have not met with any more lode, and the ground proves to be hard for driving. This I should think is enough to prove that we have all the lode. We have put the men who were driving the western cross-cut to drive north on the lode for the time.

CARBERRY WEST (Boulaslough).—The two great lodes, or works, in this silver and copper mine, to be attended to at present are the Dane's works and Chief Constant lode. Both these works claim the attention of the company, but the latter deserves immediate attention, from the magnitude of the lode as well as its productive excellence. On leaving the mine on the 6th inst., this lode (the Chief Constant) was stripped 12 feet in width, and 3 fms. east and west on the bearing of the lode; the height at opening west being near 3 ft. at forebreast, and east 8 feet, having a small lake south-west of opening; every stone taken up contains grain ore, with occasional specks and lumps of rich grey silver ore, and well mixed with green carbonate of copper, which in the openings of some of the stones formed a crust of pure malachite. The specimens I took were from the surface, but a box of specimens is to be forwarded, by Captain Thomas, chosen from different divisions of the works opened since. As I mentioned in my short report of July, the lode is composed of quartz, chlorite, grey silver, copper, and green carbonate of copper, passing in open places into malachite; in such openings also acicular crystals of silver occur, as shooting from deposits of grey ore. The entire rock on both sides of the lode seems almost saturated with grain ore and green carbonate of copper, evidently indicating masses of ore beneath. On leaving the mine, I gave directions to continue opening on the width of the lode till the breadth be ascertained, by the under and overlaying walls; and since, I received a letter from Capt. Thomas, dated August 9, from which I extract the following passages:—"At present the size (width) of the lode cannot be ascertained; we are still cutting north upon the south part of the lode, and are upwards of 2 fms. in that direction, but as yet no north wall. As far as we have opened on this extraordinary lode, or rather mineral range, its general character has exceeded my expectations, and, as far as one and green carbonate of copper, quartz mixed with silver grey ore (of high per centage), native copper, tale, and chlorite go, it promises to be a first-class mine. The stratum in which this great lode is imbedded is what may be termed, in the strictest sense of the word, truly metalliferous, and, consequently, large quantities of rich copper ore may be expected by properly developing it." Now, I have no doubt but other lodes of great value will be discovered on this valuable sett; but at present I recommend that two good whim engine-shafts be sunk, one to work the Dane's lode, and the other to work Chief Constant; making cross-cuts to the lode at 7 fms. in depth, at 12, and at 20, and which in a short time large quantities of ore will, according to present indications, be raised. In the meantime, a road for the conveyance of the ores to Crookhaven should be made; washing-floors, smithy, magazine, office completed, &c., and three or four miners kept at cutting open-cuts, surface cross-cuts, &c., at and near certain places where indicate deposits of ore. By this means, with strict attention to economy and avoiding all doubtful trials, there is no doubt but great success will attend these mines.—St. Pierre Foley, M.E.; *Essex-street, Islington, Aug.* 18.

Extract from Capt. Henry Thomas's letter of Aug. 16:—I was at Boulaslough, Carberry West, last Friday. I scarcely ever saw a finer looking lode; it contains beautiful gossan, quartz, rich silver grey ore, and a profusion of green carbonate. I am very anxious to be sinking and stoping on the lode, and my opinion is, as soon as the shaft is sunk a few fathoms we shall not be long in raising a cargo of ore.

CHARLESTOWN UNITED.—The lode in the stopes at new shaft continue about 6 ft. wide, producing the usual quantity of work of fair quality. We have passed through the lode in the cross-cut west, which we found to be about 9 ft. wide; at this point the lode is poor, but bearing a kindly appearance; we are still driving this cross-cut south, in expectation of cutting another lode. At Fatwork, Bone's lode in the end driving west of the cross-cut is about 1½ ft. wide, producing some good stones of tin. Phillip's branch, driving west, is about 1½ ft. wide, producing some rich work. At diagonal shaft, we are now stoping the back in clean killas, close to the south wall of the lode, and intend to commence taking down again in about a fortnight. At Blue Borrow the lode is 12 ft. wide, work of the usual quality. We are prepared the greatest portion of the work for Hicks's stamps, and shall commence fixing the frame for the wheel, &c., the early part of next week, and expect to get them to work in about a fortnight.

— *Aug.* 26.—Bone's lode, in the end driving west of the cross-cut at Fatwork, is much improved in appearance, being about 2 ft. wide, producing some good work; this lode has an underlie north about 2 ft. in a fm.; the ground in the cross-cut at this shaft is at present mixed with spar, containing mundic and spots of copper ore. Phillips's branch is still about 1½ in. wide, having a regular underlay, producing some very rich work. In the western part of the mine the lode continues without any alteration worthy of notice from last report. At Buckler's shaft we have commenced taking down the lode, which we find to be about 4 ft. wide, yielding work of fair quality. At Diagonal and Blue Borrow no lode taken down since last report. We are progressing favourably in building Hicks's stamps, &c.

CHRISTOW.—The engine-shaft is sunk from surface about 18 fms. in favourable ground; its character is similar to that found at different points near the lode in this district. In about three months from this time, should the ground continue favourable, the shaft will be 30 fms. deep, where I advise cross-cutting the lode, and when opened on a few fms. each way, I have no doubt it will be found productive. The engine is working, and the mason work thereto belonging nearly completed; the surface labourers are discharged and the materials are to be weighed, measured, &c., in and out, and proper entries made in books kept for that purpose,—everything that can be shall be done to see the lode at a 30 fm. level in the least possible time.

CHURCHSTOKE (Salop).—We have commenced sinking the shaft upon the Calcot lode, and by the 25th inst. I shall be able to judge of its character.

CHYPRASE CONSOLS.—On Saturday last, the 21st inst., we sold our first parcel of tin—viz.: 2 tons 0 cwts. 2 qrs. 6 lbs., which we shall follow up by other sales as rapidly as our present very limited water-power for stamping will allow. The coming season will doubtless furnish a sufficient supply of water to enable us to extend our dressing operations, when our returns will, I have no doubt, place this mine in as highly favourable a position in public estimation as it deserves to be. We are opening excellent ground for tributers, and the lode in the 16 fathom level west continues still rich; this is, undoubtedly, the best shoot of tin ever seen here.

CLIVE (lead).—The timbermen are getting on well with the whim for Summer shaft, and the repairing, in order to make this a good whim-shaft. I am anxious to commence the 20 fm. level. We have put a footway in the air-pit to the 8 fm. level, which we shall find very convenient. The patch continues to look well, from which we are raising a quantity of lead ore. The lode in the shaft sinking under the deep level is still kindly, with occasional stones of solid lead. The lode in the deep adit level is more kindly, and producing occasional stones of lead. I was obliged to take the men from the incline, to cut a foundation for the grinder-house, and to take away the over burden from the quarry, in order to get stone, or otherwise we should have completed the cutting and levelling of the incline. Since the dry weather we are getting on rapidly, and hope to be ready for the crusher.

CREETOWN.—On No. 1 lode, in No. 2 end, we have met with a small branch of gossan come in from the south, with a harder compact rock, and making a quantity of water; it has altered the lode for the better, but it is only just cut. I hope to see a change for the better in a few feet driving. The lode in No. 3 end is 3 feet wide, and a branch 9 in. on the south wall is composed of gossan, quartz, copper, and lead—a very kindly lode. I do expect this lode will make a good mine in depth by the strength of gossan going so deep with the lode. No. 2 stopes are yielding 1 ton of copper and lead per fm. No. 3 stopes are still kindly, with good ore. No change in the cross-cut driving towards No. 2 lode. We expect to complete the lodge and commence to sink the shaft in a fortnight from this time.

CUBERT UNITED.—The engine-shaft is now 4 fms. 3 ft. 6 in. below the 45 fm. level. The lode in the 45 west is much the same in appearance and value as stated in my last. The lode in the 35 east has much improved, and is producing some good bunches of lead, with every prospect of there being a further improvement ere long; west, the lode is still promising, producing some good bunches of lead, ground very favourable for driving. The lode in the 25 east is promising, producing some good bunches of lead; the stopes in the back are turning out fully equal to expectation. In the stopes above the 45 there is every prospect at present that the lode, on being fairly worked, will yield sufficient quantities of ore to fairly and amply remunerate. We have sampled 40 tons of lead ore, samples of which will be forwarded to the respective lead buyers, as usual. Some parts of the new engine have been brought on the mine, and the engineers state that the whole will be ready by the time specified.

— *Aug.* 25.—The engine-shaft has been sunk during the past week about 2½ feet, being now 5 fms. below the 45 fm. level; we expect to withdraw the men from sinking the shaft in a day or two, and put them to arrange the pitwork, preparatory to stopping the engine, which we expect to do about the middle of next week. The lode in the 45 fm. level west is still looking exceedingly well, and much the same in value as it has been for the last fortnight. The lode in the 35 fm. level east is productive of some good bunches of lead, and, on the whole, is very promising; the lode in this level to the west is much improved, producing some excellent work, and there is every indication of having a very rich lode here before long. The lode in the 15 fm. level east is very promising, producing some excellent stones of lead, but is at present accompanied with much gossan. The stopes in general are looking well, and producing a fair quantity of lead. We are making every preparation for putting up the new engine; the bob and cylinder, with most of the other heavy work, we are informed, will be on the mine the beginning of next week, soon after which we shall commence to take away the old engine, and, as soon as possible, heave in the new one.

CWMDYLE ROCK AND GREEN LAKE.—We have a large quantity of ore broken in the different levels, the stopes of which assume the same kindly appearance they have for several weeks past. We have ore enough raised to employ nearly 20 hands more at the floors, which we are now seeking for. We shall lose no time in getting on with the surface operations. We are sending ore to Carnarvon, and hope to transmit a sufficient quantity for our first sampling forthwith.

DEVON AND COURTENAY CONSOLS.—The western end of the stopes, in the bottom of the 60 fm. level, will turn out 3 tons of good ore per fm.; the eastern end of the stopes, in the 60 fm. level, will turn out 2 tons per fm. We have cut through the caples of the lode in the cross-cut in the 70 south; we cannot see enough of the lode to say what it is composed of. There is no alteration elsewhere.

DUKE OF CORNWALL.—The lode in the 40 fm. level east is improved in the last week; in opening on the south part we find a good course of ore, and have not yet come to the south wall; the 40 west is not looking quite so well as it did last week, but still continues productive, and, from the present appearance, I am firmly of opinion that it is about to resume its former richness. In the 20 fathom level east we are driving through the cross-course, in which there are some stones of rich ore. Altogether we are looking exceedingly well.

EAST BLACK CRAIG.—We have cleared the deep adit now upwards of 50 fms. west from the last shaft, and the whim-shaft is clearing below the shallow adit, with the ground firm all round it.

EAST BORINGDON.—Annie's shaft has been sunk, since last report, about 3 ft. in the 12 fm. level, going west, the lode is in rather a disordered state. I have not yet set this level to drive east. In the adit level going east we are laying open ground that will set at a moderate tribute.

EAST CROWNDALE.—Our end driving west on the north lode does not present any improvement, and the ground is hard. In our tribute pitch we have a good lode. In the western end of the winze, for about 6 ft. high, the lode is 2 ft. 6 in. wide, almost solid ore; the tributers will do well at 12*s.* in 1*l.* I think, if this lode holds so good until next Saturday, when the tributers' time is up, we ought to put on more strength in this place, in order to prove what this lode will lead to, as it seems to be going down south of the winze, and the level driven west.

EAST WHITE GRIT.—The lode looks more promising south of the shaft. At a distance of about 50 yards on this side a strong string intersects the lode, where a small branch of ore is formed. I have put two men to work upon it, and they will probably raise about 10 cwts. of ore in the week. When the shaft is cleared a little further down, I expect to sett another pitch to raise ore.

EAST WHEAL RUSSELL.—We have stopped driving south in the Tunnel level for awhile, and commenced driving west on the course of the lode. I am happy to inform you the first hole the men blasted in the north side of the end broke fine stones of copper ore; we have a good lode as far as we can see, which is 3 feet. There is a large piece of the lode standing to the north; we have not yet had time to cut through it. I hope in my next report I shall furnish you with the news of a great and good mine. We have had a sample of the stuff tried by the assayer, and it produced 17 per cent. Mr. Hitchins has been in the Tunnel to-day (Aug. 26th): he says he never saw a more promising lode for great quantities of copper. Hitchins's shaft, in the cross-cut driving south, in the 55 fm. level, is driven 2 fms. and upwards in a splendid and promising lode, very much the appearance of the lode in the Tunnel end, and no south wall. The cross-cut south in the 45 fm. level is in killas, as we expected; the end driving west, in the same level, is in gossan, prian, and sugar spar; the end driving east, in the same level, is in white elvan. I believe the main part of the lode is north of the present end, which we shall prove shortly; we have commenced driving the north cross-cut towards the north lode in the 45 fm. level. The machine is ready to go to work to blow air with one engine. Our engines are in good order, and are working well.

ESGAIR LLEE.—We think the 10, east of the cross-course, has been extended on a north branch of the caunter lode, inasmuch as it has not yet had any effect in draining the winze above, and we have resumed the 10 on the middle lode, where it will, according to the dialling, intersect the caunter about 8 fms. further east. We have divided the shaft to the 20, and are now drawing from that level with the machine whim, and as soon as we finish cutting the plat we shall commence sinking for the 30. The caunter lode in the deep adit, east of Tomkins's rise, is still looking very promising, being a good mixture of ore for 3 or 4 ft. wide, also where we have cross-cut it, 12 fms. behind the present end, and we are about to cross-cut it still further west. We have also commenced making the wheel-pit for the new pumping-wheel. Mr. T. P. Thomas inspected the mine on Tuesday last, and is highly pleased with the general character and prospects of the caunter lode in the deep adit cast.

GAWTON UNITED.—In the deep adit level east our tram-road is advanced sufficiently far to allow us to rise on the back of the level on a lode 3 ft. wide, composed of mundic, peach, and black and yellow ore; about 30 fms. further east, as soon as our level is completed, we shall set another rise, and which, when communicated to surface, according to present appearances, will open three pieces of tribute ground. In the cross-cut south we are pushing on the cutting a broad level towards the lode. Our hauling machine is fixed and working well. In the shallow adit level, at the eastern mine, our road is laid down far enough to admit of driving west on the second lode, which is 3 ft. wide, spar, mundic, and rich yellow and black ore—a most promising lode; we hope also to set a pitch in the back of this level, east of the old men's rise, on mundic and ore.

GOGINAN.—The lode in Taylor's shaft, sinking below the 130 fathom level, is 8 ft. wide, yielding 1 ton per fm.; the lode in the 60, east of Gilbertson's shaft, is disordered by a cross-cut. In the 45 fm. level, at the boundary shaft, it is 10 feet wide, yielding 30*s.* worth of ore per fm. The lode in the shaft at Bryn Pica is 7 ft. wide, with a promising appearance, and intermixed with ore. In the rise over the adit level, against the western shaft, it is 5 ft. wide, yielding good stones of ore. The pitches are looking favourably.

GREAT BADDERN.—The lode in Kenworthy's shaft, sinking below the 51, is 1 ft. wide, mundic, and spots of lead. The 40 east is 1 ft. wide, producing good work, and a good lode in the rise in the back. The lode in the 30 fathom level east is 1 foot wide, a good lode of lead. We expect to sample on Saturday from 50 to 60 tons of lead ore.

GREAT ONSLOW CONSOLS.—The lode in the bottom of the 22 fm. level, east of engine-shaft, is very large, yielding ore. The lode in the 35 east is also very large, composed of mundic, quartz, fluor-spar, and good stones of ore. The lode in the stopes below the 35 is at least 14 ft. wide, yielding ore. The lode in the 45, east of Bennett's shaft, is composed of quartz, a small quantity of mundic, and spots of ore. The lode in the 45 west is very large, yielding a moderate quantity of yellow ore; this end produces some good specimens of fluor-spar, of a deeply tinged blue colour. At Bennett's shaft, in the 50, the lode has been cut into about 10 feet, and the foot wall not yet reached; 8 ft. of the lode is composed of mundic, fluor-spar, and ore, with evident signs of a considerable portion of the lode still standing, from which large quantities of water are issuing. The silver-lead alluded to in a former report has been assayed by Messrs. Longmaid and Son, and the produce was—Lead, 80 per cent.; silver, 14 ozs. 5 dwts. 20 grs. per ton. Also the precipitate of copper, which produced pure copper 77·5 per cent. The present appearance of the mine continues to improve, and the change of ground is greatly in favour of the different operations.

HALAMANNING AND CROFT GOTHAL.—We have minutely inspected these mines, both underground and at surface, and beg to hand you our report thereon. The accounts have been examined by a competent person, whose remarks you will receive with this report:—On Park lode, Park Halamanning engine-shaft is cleared and cut down to the 46 fm. level below adit, and should be continued with spirit; at this part of the mine the lode has been worked away, with the exception of a few feet left in different places to keep the ground open. The levels, which have been cleared for a considerable length, have unavoidably cost a great amount in timber and labour. The few feet of lode left from the former workings bear indications of a good course of ore, on which the tributers will occasionally do well, in spite of the strictest scrutiny of the agents. In the 40 fm. level, driving west of Orchard shaft, there is a good course of ore; the backs are working at 2*s.* 9*d.* to 4*s.* in 1*l.*, and giving the men fair wages; this part of the mine is now looking exceedingly well. In the 46 fathom level there is a very good lode, which is improving as it gets under the ore ground in the 40. At Croft Gothal, in eastern Park, Winterbottom's is sinking as fast as possible under the 40 fm. level; this is a perpendicular shaft, calculated to intersect the Park lode in the 100 fm. level below adit: this part of the mine on the lode is drained by flat-rods from Winterbottom's engine. The flat-rod shaft is cleared and cut down (being previously very small) to the 54 fm. level, and should be continued in order to drain the old workings in this part of the mine. At this point the levels have been cleared and secured for a very considerable length; good tribute ground is now laying open, and every level cleared in depth is more productive than the one above. The foregoing is a most promising and extensive mine of itself, but there are also several side lodes of much promise, one of which presents rather a prominent feature—the Bulley lode, which runs north of east and south of west; this is a caunter to Park lode, the latter being nearly east and west; this (Bulley) lode bids fair to rival Park lode, and intersects it at a point west of Park engine-shaft; on this lode there are extensive old workings. Buzzo's shaft has been cleared from surface to the 40 fm. level, which level, as well as the levels above, have been cleared and secured as far west as the whole ground. In the 30 fm. level, west of Buzzo's shaft, the lode is 1½ ft. wide, composed of a beautiful gossan and malleable, or native copper. In the 40 fm. level, west of Buzzo's shaft, and at about the same point, there is a good lode of black ore 1½ ft. wide. At eastern Park, on Bulley lode, Birch's shaft is down to the 28 fm. level; this level is extended each way about 25 fms. The 28 east has been driven from shaft, and is still driving through good tribute ground. The ground opened in the west level will work at 10*s.* in 1*l.* The tribute throughout the mine, with scarcely an exception, looks remarkably well. As regards the management of the underground operations, the erections at surface, or the engineering department, we see no reason to find fault.—James Miners; John Vivian: *Carn Brea Mines, near Redruth, August* 13.

Aug. 21—*Agents' Weekly Report.*—No further discovery has been made in the 50 to the west of Park engine-shaft, and nothing more can be done here until Bunk shaft is cleared to this level, when we shall ascertain its richness. The 46 fm. level is clear between Bank and Orchard shafts, and four pitches are being worked in its bottom, each, at the extremely low rate of 4*s.* in 1*l.*; from these pitches there are solid rocks of grey ore being obtained, of such size and weight that the men cannot lift them. It is an astonishing fact, but one which is as accurately true, that from 30 fms. to the west of Orchard shaft to 30 fms. to the east of the eastern Park shaft, in all a distance of more than 200 fms., such a length of mineral ground is not again to be met with throughout the county. The 40, west of Buzzo's, contains a splendid lode 18 inches wide, solid black ore—we estimate its value at least 40*l.* per fathom. The 30 fathom level, west of Buzzo's, is worth about 10*l.* per fathom. Several new pitches have been set at Croft Gothal since last report. Croft Gothal never presented such good appearances before as at the present time—this mine will shortly prove extraordinarily productive. Park Mine never looked so well as at present. Immediately after the sampling, which will take place on Tuesday next, you will be informed of the quantity—it will exceed 200 tons; this ore was raised in about three weeks.

HINGSTON DOWN.—The lode in Hitchins's shaft produces some very good stones of yellow copper ore. We purpose sampling 70 tons on the 27th inst.

HOLMBUSH.—We are fixing the new plunger-lift in the 145 fathom level at Hitchins's shaft; the ground is favourable for killas. The ground in the 145 cross-cut north, and in the cross-cut south of diagonal shaft, is favourable for driving; such progress is making both ways that we expect to make the communication this month; the lode is still found to be split into branches in the 145 west of diagonal shaft; those branches are composed of spar, mundic, and copper ore, producing 1 ton of the latter per fm. The lode in the 145 east is still standing—we have about 2 fms. of it resumed; the wall of it continues promising, being smooth and hard, and running in the right direction for it to be found productive, and to the extreme end explored. The lode in the rise over this level is 10 in. wide, producing 1 ton of ore per fm. The 132 is producing 1 ton of ore per fm. The lode in the 133 south is 6 feet wide, composed of quartz, prian, and stones of lead; opening tribute ground. The flap-jack lode in the rise over the 120, east of great cross-course, is producing 2 tons of low price copper ore per fm. The lode in the 110 east is 8 ft. wide, producing 12 tons of ore per fm; the south part of the lode contains more mundic, and there is a small horse of killas in or near the centre of it. The lode in the 100 east is 3½ feet wide, producing 2½ tons of ore per fm. The ground in the winze is white soft killas, with small branches of quartz traversing it north and south, which makes it rather spare for sinking through. The lode in the 100, west of Wall's engine-shaft, is 20 inches wide, since we have got through the cross-course, it is composed of a great quantity of mundic, blende, and stones of ore, which we save for work, but at present it is low price copper ore. The ground in the 124 cross-cut, north and south of Wall's engine-shaft, is much the same. Each level is being pushed on as fast as possible. The tribute department, on the whole, is not looking worse.

KESWICK.—At Brandley, the 20 fm. north is worth 12 cwts. per fm.; No. 1 stope, 10 cwts.; Kelly's rise, 15 cwts. The end in the 30 fm. level north is producing stones of ore; No. 2 stope is worth 12 cwts.; the 30 fm. level south, 12 cwts.; the lode in the Salt sump shaft, 15 cwts.; Graham's stope, 15 cwts.; Coulson's stope, 18 cwts.; and Gough's stope, 8 cwts. of ore per fm. At the Barrow Mine, the lode is worth 20 cwts. of ore per fm. At the Thornthwaite Mine, the 27 fm. level sump, on the vein, is producing 25 cwts. of ore to the fm., and in places is worth 40 cwts.

KILBRICKEN.—The stopes continue without alteration. Galven's driving is poor. We are nearly in to unwater the old working; there is a quantity of water issuing through the ground. We are getting into stones of lead in the driving above the stopes.

LEWIS.—The engine-shaft, sinking under the 90, is 4 feet wide, composed of mundic, spar, and occasional spots of copper ore. The lode in the 90, east from tin shaft, is 2½ ft. wide, opening good tribute ground; west from sump-shaft, it is 1½ ft. wide, unproductive. In the 80, west from sump-shaft, it is 3 ft. wide, unproductive; in this level east from tin shaft, it is 15 in. wide, worth 25*l.* per fm. In the 70, east from Praed's shaft, the lode is 1½ ft. wide, opening tribute ground. In the 60, east from Praed's shaft, the lode is 1½ ft. wide, producing good stones of tin.

LYDFORD CONSOLS.—The lode in the 70 fm. level north is in a disordered state. The lode in the 60 fm. level north is turning out some good work for lead ore, and promising improvement. The lode in the 50 fm. level north is large, composed principally of flookan; we have suspended this driving for the present, and put the men to rise for communication with the 36 fm. level, which will ventilate both the drivings; in this level (50) south we are sinking a winze for communication with Friend's rise, which will give us air enough; I hope to stope around Wrensworth's rise, where there is a good lode; the cross-cut west is still in hard ground. The lode in the 36 fm. level north is for the present small, but kindly, producing occasionally good stones of lead ore. The pitches in the back of the 24 fm. level, north and south, are turning out fair average quality lead ores.

MOLLAND.—The engine-shaft is down to the 52, the sumpmen having reared up the lift, the engine is now draining from this level. Before casing and dividing down the shaft, I have thought it prudent for the men to cut a barrow road round the shaft, which in doing the lode in the eastern end of the shaft has proved to be from 4 to 5 ft. wide, with good stones of ore, and of a more promising character than I have seen it for some time past. We shall get everything in order here, to extend east and west on the lode with as little delay as possible. The 42 west, at present, is small and unproductive. A few days ago I put the men in the 42 east back 2 or 3 fms. from the end, to drive on a branch in the north side, which has proved to be the main part of the lode, and a promising one. It is 4 ft. wide, all saving work, and worth from 6*l.* to 7*l.* per fm. The pitch in the back of this level, though very kindly, is not quite so productive as it has been. We are still driving the cross-cut north, and I am led to think, by the water it produces, there is another branch just at hand. The lode in the 30 west is still very large, but unproductive; the same level east is 4 ft. wide, still producing good stones of ore; the pitch in this level is not producing quite so much ore as last reported. We are still eosteaning for the south lode in the same place as we were last week. On the whole, I am happy to state that our mine is looking much more promising than I have seen it for some time past.

NEW EAST CROWNDALE.—We have driven the 32 fm. level a few feet east on the course of the lode, and shall continue the driving on the south part, or footwall, as the lode is very large. The part now working on is composed of a quantity of mundic, spar, and peach, spotted with yellow copper ore; there is no doubt of its turning out well, both in the present and deeper levels. The engine-shaft is 16 ft. under the 32, in a beautiful stratum—a blue killas; this place we shall push on with all possible dispatch.

NORBURY (copper).—The men were put to work yesterday (August 25th) to open the level, which is in pretty good order, only too low. We shall be able to put it in good working order for a very small sum.

NORTH BASSET.—The lode in the 92 fm. level, driving west of new shaft, is 4 ft. wide, a beautiful lode of yellow ore. In the 92 fm. level, driving east of new shaft, the lode is 3 ft. wide, producing 3 tons of ore per fathom. The lode in the 82 fm. level, driving west of new shaft, is 18 in. wide, with stones of yellow ore. In the 82 fm. level, driving east, the lode is 3 ft. wide, worth about 3 tons of ore per fm.

NORTH BULLER.—We have completed the standing lift, &c., and are now sinking the shaft with all possible speed, the ground still favourable. The 53 cross-cut north is much easier for driving, with a quantity of water flowing from it, which leads us to judge we are getting near a lode.

NORTH DOWNS.—In the 90, east of west shaft, the lode is worth 10*l.* per fm. In the 80 east lode 18 in. wide, producing good stones of ore, and looking very kindly. In the 70, east of John Michael's, lode 1 ft. wide, with spots of ore, disordered with killas. The 60 east is driving south to prove the lode; in the winze below the lode is small, and but little ore. John Michael's shaft, below the 60 is sinking in the country.

NORTH WHEAL BULLER.—I have no alteration to report in the bottom level, but we have a general improvement in the levels above. The 70 fm. level not yet in the lode, but, from an increase of water and change of ground, we calculate on being very near it, and hope another week will enable us to report favourable results. The 60 fm. level has been in branches for the last 15 fms. driving, which at this point appears concentrated; the lode at present is 2 ft. wide, composed of spar, with mundic and copper, but not enough of either to value; we anticipate a further improvement in this level also as we open under a large lode seen in the level above. The 50 fm. level is opening a fine looking lode, 2 ft. wide, with a leader of red ground, which we calculate will improve in quality as we pursue it towards the intersection of the ore discovered in the level above; in this level we have great expectations, and, consequently, have increased the number of pickmen in it, from the circumstance hereafter mentioned. In sinking the winze under the 40 fathom level, which is down about 3 fms., we have a very good lode in the bottom, 3 ft. wide, which may safely be value at 20*l.* per fm. in sinking, but the increase of water yesterday (Aug. 13) prevents our going further until the level below shall have drained it, either by extending to intersect this part, or by cross-cutting into it; the back of this level is also producing very good ore, and we have increased the number of men there also, so as to find employment for the winzemen in breaking ore; we calculate this spot to have given us 40*l.* worth in the last week. In the 40 fm. level west, on the north part or caunter, the lode is 15 in. wide, of a very promising appearance, but at present without ore to value; this level east, on the caunter, is producing some excellent ore; the lode is about 1 ft. wide, opening ground that will work at 5*s.* in 1*l.*; during the week it has been larger, and we calculate on its resuming the former size, and we are much pleased at being able to say the mine never looked so well.

NORTH WHEAL ROBERT.—We are looking exceeding well in the 30 fathom level, west of Murchison's engine-shaft, lode 6 feet wide—the north part of it for 18 in. wide saving work, producing 1¼ ton of copper ore per fm. (worth 8*l.* per ton); the lode in the same level east is 18 in. wide, composed of spar, white iron, mundic, and occasionally good stones of copper ore. The lode in the adit end is unproductive at present. The shaftmen are driving the cross-cut north to the 42.

PEMBROKE AND EAST CRINNIS.—In the 48 east, at Pembroke, the lode is 2½ wide, with good stones of ore, improving in appearance every fathom we open on it. The men who were driving on the south lode are put to sink Garden shaft under the 48.—East Crinnis: in the 30, west of Hunter's shaft, we have cut a lode 2 ft. wide, with some stones of grey ore, and a little malleable copper. In the winze sinking under the 30 north, the lode is not more than 4 in. wide, producing very rich stones of ore; in the winze sinking under the same level, north of Clark's, the lode is 18 in. wide, ore throughout. In the 40 north the lode is 18 in. wide, and looking well, with stones of ore. In the 40 cross-cut, south of Gill's shaft, we have cut a good branch of ore, 4 inches wide; this cross-cut we intend to drive, and cut Thomas's lode. In the 30, west on Thomas's, the lode is 5 ft. wide, and very promising, with beautiful stones of ore. In the 20 east of the lode, south of Thomas's, we have a very promising lode, 15 in. wide, with good stones of ore. We have since last Tuesday drained the water in east Crinnis 10 fms. I hope we shall drop our lift in Pembroke in the course of next week.

Aug. 24.—In the 48 east, from Garden's, the lode is 18 in. wide, with good stones of ore. In the 30, west of Hunter's shaft, the lode is 3 ft. wide, with good spots of ore, and is very promising; in the winze sinking under the 30, north of Clark's, the lode is 2 ft. wide, with good stones of ore throughout. In the 40, north of Clark's, the lode is 1 ft. wide, with good stones of ore. At Truscott's, the north lode in the 40 is 2 ft. wide, with stones of ore. In the 30, at Thomas's, the lode is 3 ft. wide, with very good stones of ore. The 20, at Thomas's, west on the south lode, is 1 ft. wide —very good stones of ore; east it is 18 in. wide, with good stones of ore. The 40 east, towards Wheal Unity, is very large, with a great stream of water coming from it. The water is gone down in Wheal Unity 12 fms.; and shall next week put a pare of men to clear the south shaft, and follow down the water as it drains in this part of the mine. We are now busily engaged in dropping the lifts both in Pembroke and East Crinnis shafts.

PENHALE CONSOLS.—The machinery for forking below the 48 fm. level has been put to work, and is answering exceedingly well. The sumpmen have cleared 3 fms. below this level. In the 48 fm. level the men are still clearing south, and we have every reason to believe are getting near Gurney's shaft. The tribute pitches are producing fairly.

PERRAN CONSOLS.—The engine-shaft is sunk under the adit level 1½ fms.; within the last few days the ground has much improved—the elvan still continues, but not so hard. I set to the men last Monday 1 fm., for 34*l.*, and expect they will sink this week more than last; we have 12 men in this shaft. The whim-shaft, on the course of the lode, is down under the adit level 11 fathoms; the lode is undergoing a considerable change for the better, composed of spar, with good stones of tin and copper ore. The boundary shaft, west of engine-shaft, is down to the stent; in driving east of this shaft we are raising some good tin—the ground good for sinking and driving. No. 2 lode, 6 fms. north of engine-shaft, has been seen 16 fathoms from surface, and is composed of gossan, spar, and tin, with a branch containing copper ore, 5 to 6 in. wide, parallel to it. No. 3 lode, about 7 fathoms further north, has been seen 9 fms. from surface, and is about 16 in. wide, composed of gossan, spar, and tin. No. 4 lode, a little further north of the latter, has also been seen at the same depth from surface, composed of spar and tin. There are sevel other lodes both north and south of the engine lode, one of which is upwards of 10 feet wide. The engine and pitwork are in excellent order, and working well.

PERRAN WHEAL JANE CONSOLS.—We took possession and commenced operations early in April last. Instead of laying open the lodes formerly worked by the Truro Consols and Wheal Montague companies, known as the copper lodes, we commenced searching out and laying open the celebrated tin lodes of the Prince Albert Mine, which, up to that time, had been unwrought and unseen in this sett. On the second day after beginning to explore, we found what we usually call the Prince Albert lode, sunk a pit some 3 or 4 fms. on the course of it, and broke some good stones of tin, some of which are now at the office. Efforts were also made to find the old pink lode, and after succeeding, we commenced driving an adit on this lode, which is extended 16 fms. The lode here is very large, and of great promise; in fact, it is one of the finest backs to be found anywhere, but too shallow to produce much tin. In order, therefore, to see the lode deeper, and in a more settled state, we have sunk a diagonal shaft at the tail of the adit; nine men are employed here, and the shaft is from 8 to 9 fms. deep. The lode here is about 9 ft. wide, having two leaders, and producing some good saving work. Its component parts throughout are highly indicative of large deposits of tin at no great depth. The water, however, is very quick, and better means must be immediately adopted to draw it than that of manual labour. A horse-engine must be set to work, or a steam-engine, and it will rest with the committee and shareholders to decide the matter. From all I have seen, I have great pleasure in stating that I fully believe Perran Wheal Jane will, ere long, be very productive for minerals, and profitable to the adventurers.

POLGEAR AND LANCARROW.—The engine-shaft is sunk to the 25 fm. level, cased and divided, so as to enable us to cut plat and drive west. At Wheal Moyle, we are progressing favourably in sinking the shaft—lode 4 ft. wide, producing tin, with branches of lead and copper. We have suspended the stopes, and put four men to sink on the lode about 80 fms. east, so as to see its character at this point before winter sets in.

RIX HILL.—We have not yet discovered anything in the 40 cross-cut south, but there is still plenty of water coming therefrom. I have suspended the lead west of Renfry's winze, and put the two men to drive south in the 28, on the cross-course, which is about midway between the middle and sump shafts; this I have done to intersect the new south lode at this point, and then to rise towards the 17, as mentioned in my report a short time since. In the 28, driving west of sump-shaft, the lode seems to be shifted south; we have a great quantity of water coming in that direction; I have put the men to find it; the same level, west of middle shaft, is poor. We have not driven far enough west to be in a position to rise to Burn's pitch, which we shall in all probability do next month. Our tribute pitches, on the whole, are not quite so good as last reported, but we have a good branch of tin going east in Treaskis pitch, which is altogether south of the present workings, and in good ground.

SOUTH RUSSELL.—Nothing new to report of any consequence.

SOUTH TOLGUS.—The lode in the 78 fm. level is looking kindly. The south lode in the 66 east is very promising, yielding 1 ton per fm. In the 54 it is small. Youren's lode in the 54 west yields 2½ tons per fm.; this level has passed through a fine course of ore for the last 18 fms. In the 42 west it is improved, and will yield about ½ ton per fm. A cross-cut from the new shaft has intersected a very promising lode, yielding good stones of black and yellow ore. The prospects of the mine are very good; and about 4300*l.* worth of ore has been discovered within the last two months.

ST. AUSTELL CONSOLS.—*Aug.* 17.—I inspected this level at Hawkin's shaft, which is shallow, about 9 fathoms deep; here, in driving south, we have cut a lode, from the north side of which we have broken good stones of copper ore, although we have only opened into it about 2 ft. I look with great interest to this part of the sett; glad would many be, after the expenditure of large sums, to have such a lode; however, no one knows yet at what depth it will be productive. In the adit we examined the cross-cut north and the driving on the cross-cut south, to cut the great Goffin lode; both levels are progressing favourably, in cheap ground. West of Hoppet's shaft, the tinstuff broken on the course of the lode is very fair work—the men say rich and speedy to break. Our trials seem to look very favourable: our engine must be erected to go deeper.

— *Aug.* 18.—Since my last report we have cut the great Goffin lode about 200 fms. east of Hancock's shaft; we are not through it, but, from what I can see, it is most promising. Where I have erected the new whim on Hoppet's shaft there are three lodes, two of which I have tried for tin, and they will produce from 2 cwts. to 3 cwts. of tin per 100 sacks. With 12 heads of stamps, I feel certain to pay the whole costs of the mine.

TAMAR SILVER-LEAD.—In the 215 fm. level there has been no lode broken since last reported on. In the 205 fm. level end the lode is 18 in. wide, producing good stones of ore. In the 190 end the lode is small and poor. In the 175 end the lode is 3 ft. wide, opening rich profitable ground. In the 160 end the lode is 1 ft. wide, 6 in. of which is rich work. In the winze sinking in the bottom of the 145 fm. level the lode is 2 ft. wide, producing work of good quality. At the north mine, the engine-shaft is sunk 10 fms. 2 ft. below the 90 fm. level; driving north the lode is 2½ ft. wide, composed of can, capel, and ore, yielding work of a congenial appearance. In the 80 fm. level the lode is 1 ft. wide, unproductive.

TAVY CONSOLS.—The ends east and west in the 36 are looking as well as ever, and I have no alteration to report in any part of the mine.

TINCROFT.—On Highburrow tin lode, at the engine-shaft sinking below the 152 fm. level, the lode is 5 feet wide, worth 30*l.* per fathom for tin; in the 152 fm. level, east of the cross-course, we have cut the lode, but have not as yet cut through it to ascertain its value,—it presents a favourable appearance. In the course of a short time we shall report more fully on it. At Martin's east shaft, sinking below the 142 fathom level, the lode is 5 ft. wide, worth 18*l.* per fm. The stopes in the back of this level are worth 12*l.* per fm. The stopes in the back of the 132 east are worth 8*l.* per fm. Chapple's lode, in the 142 fm. level, west of engine-shaft, is 2½ ft. wide, worth 6*l.* per fm. In the 120, driving west of downright shaft, the lode is 3½ feet wide, worth 15*l.* per fm. for copper. The lode in the 110, driving west of said shaft, is 3 feet wide, worth 12*l.* per fm. for tin and copper. The lode in the winze sinking below the 100 fm. level west is 5 ft. wide, worth 12*l.* per fm. The rise in the back of the 70 fm. level, on Grout's lode, is 4 feet wide, producing good stones of copper ore. At North Tincroft, the lode in the engine-shaft, sinking below the 120 fm. level, is 4½ feet wide, worth 45*l.* per fm. for copper; in the 120 fm. level driving east the lode is 4 feet wide, worth 75*l.* per fm. for copper. In the west end of the same level the lode is 2 ft. wide, worth 10*l.* per fm. for copper. The lode in the 110 east is 3 feet wide, worth 5*l.* per fm. for copper. The lode in the winze sinking below this level is 4 feet wide, worth 30*l.* per fm. for copper. The lode in the winze sinking below the 110 west is 3 ft. wide, worth 12*l.* per fm. The lode in the 100, east of Willoughby's shaft, is 3 ft. wide, worth 5*l.* per fm. for tin. The lode in the west end of the same level is 4 feet wide, worth 16*l.* per fm. The lode in Dunkin's engine-shaft, sinking below the 100 fm. level, is 4 ft wide, producing saving work for tin and copper. The lode in the 100 driving east is 3 ft. wide, worth 5*l.* per fm. The lode in the winze sinking below this level is 4 ft. wide, worth 10*l.* per fm. for tin and copper. The lode in the 90 fm. level west is 1½ ft. wide, worth 8*l.* per fm. for copper. The lode in the winze sinking below the 84 is 2 ft. wide, worth 10*l.* per fm. for copper.

TREGARDOCK.—We are progressing in cutting the plat in the bottom level; the lode in the west end is rather poor, but altering for the better; the lode in the east end is much improved, worth ½ ton to the fathom, and still likely to improve. We are getting on with our drawing machine as fast as possible, and also with the dressing floors, and have now many tons of lead to the surface.

TRELAWNY.—At Trelawny shaft, in the 120 fm. level, we find, on taking down the lode, that it is split, but the branches are evidently tending towards each other southward, and, when they unite, no doubt we shall have a good lode—we had a precisely similar occurrence near the cross-cut, in the level above, before we met with the ore. In the 137 fm. level, north end, we have met with a vugh in the middle of the lode; on the east side there is a branch of lead worth 7*l.* or 8*l.* per fm., and the ground much easier for exploring; we find these cavities more general than we used to, and most times they have been connected with good bunches of lead; in the south end, in this level, the lode is 4 ft. wide, and worth 20*l.* per fm. In the 92 fm. level, north end, the lode is 2½ ft. wide, and worth 8*l.* per fm.; south end, it is 2½ ft. wide, and worth 9*l.* per fm. In the 82 end north the lode is 2 ft. wide, and worth 10*l.* per fm., and is now near the boundary. In the winze in the bottom of the 82 fm. level, north of shaft, the lode is 2 ft. wide, and worth 8*l.* per fm. In the rise in the back of the 107 is a lode worth 9*l.* per fm. At the north mine, we have just cut into the lode in the 78 fm. level, and are taking out some good stones of ore, exactly similar to what it was in the 68 fm. level; by another week we shall be enabled to say more about it, but have no doubt of meeting with a good lode. In the 68 fm. level north the lode is 3 ft. wide, and worth 20*l.* per fm. There is no alteration in the 55 end north, and the stopes and pitches are usually productive.

TRELEIGH CONSOLS.—The 100, west of Garden's, is driving south to prove the lode; in the same level, east of Christoe, the lode is 2 ft. wide, with good stones of ore, and looking promising. The water is now in fork at Garden's shaft, and the men have nearly completed clearing the levels—intending to open a little ground in each of those ends. The pitches are not looking quite so well as they were.

UNITED MINES.—I have just returned from the Redruth district, having spent three days in that country. The United Mines is the chief topic of discourse in that neighbourhood, as well as in London. I need not recapitulate the report I gave you yesterday, but must add, that the discovery there is a most extraordinary one. That the lode stands in whole for a considerable height, if not altogether to surface, is what I have not the slightest doubt about. In the 170 the middle lode is cut through just exactly as it was seen in the 180; and the cross-cut going north is in a beautiful stratum of killas, and as yet not the slightest trace of a lode or branch has been met with, so that I am positive the lode is still to the north, and will be seen very shortly. As I stated to you yesterday, 10 feet had been cut into the lode, and no north wall; and it is not to be supposed that this lode is to dwindle to nothing in 10 fms. in height. Again, if any thing like a slide has interfered, would it not have cut off the middle lode as well, or would it not (the slide) have been seen in Hawke's shaft? which is a downright, and is down to the 220. The same remarks will hold good relative to the 155, and where I have not the least doubt the lode will soon be cut equally rich. With regard to its length, or its range to the east, it goes into virgin ground, and must be standing in whole to the west. I think it has been cut near about Taylor's shaft, in the 220; there is now a level driving on this lode, and is now 25 fms. east of Taylor's. Within the last few days this end has become very hot, and the water issuing from it is nearly of the same temperature as that proceeding from the 208, at Hawke's, and I am very sure they are near a good lode in this place; this is about 105 fms. west of where the ore has been met with. The 220 east, on the south lode, is in a fine course of ore, worth 4 tons per fm., and looking kindly for a still further improvement. Looking on all these matters, the great advantages there are for raising and dressing the ores, that its neighbour, "Consols," has made nearly a million sterling profit, the high standard for copper, &c., there is no doubt that immense profits must be realised by this wonderful lode.—M. CURRY: *Hayle, August* 20.

UNITY CONSOLS.—We are progressing favourably, with an improvement in the 50, 40, and 30 fm. levels east.

WEST BASSET.—We have set a new pitch in the back of the 84, on the engine lode, to two men, at 5*s.* in 1*l.* The lode in the 68 fm. level east is 2 feet wide. In the 50 east it is 2½ ft. wide, with stones of ore, and looking kindly to improve. The lode in the 42 east is 2¼ ft. wide, yielding 1½ ton per fm. The 68 east, on the caunter lode, is worth ½ ton per fm.

WESTON.—The ground in Cross's level continues to get softer, and we are daily cutting more water. Yesterday (Aug. 26) we cut a small lode, or string, running nearly the course of our driving, from which issues an immense feed of water. The late rain has prevented the men from making the progress they would have done in sinking No. 3 sump at Cwm Dingle, on account of the surface water getting into the old workings.

WEST POLGOOTH AND HEWAS UNITED.—Our present engagements are in cutting the plat at the 14 fm. level, clearing and securing the old levels west. We have completed clearing the adit level, which will take up and prevent a quantity of water from going below for the engine to lift. We find tin ground in these levels, and have set some tribute at 10*s.* in 1*l.*, and shall have several pitches at work in a short time; since resuming to work the engine the operations have been going on satisfactorily. I am now fully persuaded that after a little perseverance we shall have a profitable mine.

WEST WHEAL RUSSELL.—We are continuing to sink the engine-shaft (Richard's), below the 60 fm. level, on the course of the lode; the lode is just as when I last reported. In the 60 fm. level, we have taken down the lode since last report, and I find it considerably improved—having a leader of ore, about 10 in. wide; and, should it continue, we shall soon lay open some valuable ground. I have nothing new to remark on the lode in the 37. In Bayly's shaft, we have lately met with a slide, which, from its course, we suppose has heaved the lode to the south; but we hope, from the bend of the lode above the slide, to have it again in the shaft in sinking 1 or 2 fms. further. The lode in the adit has improved since I wrote you last—being larger, and having more gossan and stones of ore in it.

WHEAL ADAMS CONSOLS.—The lode in the 85 fathom level south will yield 25 cwts. of lead per fathom, and promises a further improvement. The lode in the new winze below the 72 fm. level will produce 30 cwts. of lead per fathom; this winze is commenced to the south of the most valuable part of the lead ground, in consequence of the lead having a southerly dip, and will pass through it ere it reaches the 85. If I may judge from indications, such as the draining of the lode so freely for such an immense distance, even to the south adit in Wheal Exmouth, about 250 fms., and the general character of the lode in the winze and 85 end, a large deposit of lead will be found near the boundary of the two setts. By the ill-arranged and bad state of the pitwork a delay in the extension of the 85, and the winze below the 72, has taken place, being obliged to stop the engine and divide one of the lifts; however, I hope in a few days the 72 will be drained, and the sinking of the winze resumed, and as early as possible the 85 shall be drained also, and the summpen resume their end. In the north, or adit shaft, the ground is favourable, and shall soon be sufficiently deep to cross-cut the lode. The dressing of the lead is commenced, and as soon as possible a parcel shall be prepared for sale.

WHEAL ARTHUR.—The north lode in the 50 west is 2½ feet wide, composed of spar, mundic, and spots of copper ore. The 55 east is producing 2½ tons of ore per fm., worth 6*l.* per ton; ditto west, is 2 feet wide, composed of spar, prian, mundic, and good stones of ore. The lode in Hancock's winze, sinking below the 35 west, is producing 2 tons of ore per fm., worth 6*l.* per ton. The lode in Vivian's rise, in back of the 35 west, is producing 1½ ton of ore per fm., worth 8*l.* per ton. The lode in the 20 west is producing 2 tons of copper ore per fm., worth 7*l.* per ton. The old lode in the 50 west is 5 feet wide, composed of spar, mundic, and copper ore; a kindly lode. The ground in the 50 cross-cut south, on the great south lode, is without alteration. There is an increased quantity of water coming from the end. We have sunk a small shaft on the back of the new north lode 7 fathoms deep; the lode is going down almost perpendicular, and is composed of gossan, spar, and mundic.

WHEAL CARPENTER (SOUTH SYDENHAM).—The flattering prospects held out by the reports of the 3d and 10th inst. are proceeding steadily and favourably towards realization. We have driven the 27 fm. level west about 11 fms., which, with slight variations, to be expected in the state of the ground at so shallow a level, has continued with all the same good indications as are stated in the above-mentioned reports, and this end is still improving for copper ore. We have also driven the same level east about 4 fms., and after proceeding about 4 feet in that direction the leader of copper ore disappeared, first in the back, and subsequently in the bottom of the level, and was succeeded by a change of country, and by a leader of rich lead ore in the lode, which improved in size as we extended eastward, and is now 4 inches wide, thus proving what was before indicated by the increasing size of the copper in the lode as we drove westward, that the copper ore dips eastward; and as the back of the lode has always produced lead ore, I believe, from present appearances, that we shall meet with a larger quantity of it at this level as we proceed further towards the eastern cross course; and that at a greater depth the whole of the lode will be very productive of rich copper ore. We have raised from this level, and have now at grass, several tons of copper and lead ores of rich quality. Our ore-floors and preparations for dressing are proceeding well, and will be in work, I expect, early next week, and I have no doubt of having soon to report that we have a good sampling ready.

WHEAL CREBOR.—The lode in Carlyon's winze still continues good. The 12 end east, on the south lode, is a very promising one, carrying good branches of ore; the 12 end west is just as last reported. The lode in the 24 end, the part taken down, is improving; how large it is we do not yet know, as it is too large to carry in our driving; as far as we have seen it south, it is composed of prian, peach, and copper ore. In the 34 we have a cross-course; it is flowing with water, but not enough done on it to state what it is. The tributers in general are hauling some good piles of work. Our ore for the sampling will be at the quay to-morrow morning (August 26); it is a good parcel of ore. The engine, drawing-machine, and other machinery, are all working well.

WHEAL ELIZABETH.—We have not taken down any lode driving west since last report. The stopes are producing large quantities of tinstuff; the ground in the shaft (sinking to ventilate and discharge the stuff westward) has been for the last 2 fms. rather hard, but it is now becoming more favourable.

WHEAL EXMOUTH.—This mine throughout is looking exceedingly well. By the arrangements in the monthly setting, on Saturday last, I have no doubt but 75 tons of lead will be raised for August month, and leave a fair profit. The lode in the rise over the deep adit will produce 2 tons of lead per fathom; the air shaft rise 1½ ton; the 10 south winze 1½ ton; the 68 fm. level, at Williams's, 1 ton; the north winze, 1 ton; the south rise, in the deep adit, 1 ton; the 72 fm. level, south of Williams's, 15 cwts.; and the adit level, north from the south cross-cut, 10 cwts. per fathom. The tribute department is looking well, and by having an increased quantity of water for dressing purposes, and a new shaft for discharging the stuff through and ventilation, a much greater quantity of lead may be returned monthly.

WHEAL FANNY.—Since my last we have completed cutting plat. The men are engaged making preparations for sinking at Hitchins's shaft; the men are cutting through the lode, which has a very congenial appearance; I think, by sinking a lift or two deeper, we shall have a rich and lasting mine. Our stack is 40 ft. high, and we intend putting it 20 ft. more; I think, by the latter part of next week, it will be completed, and I hope we shall bring it to a close in about 10 days from this time (25th instant).

WHEAL GOLDEN CONSOLS.—At Thorne's shaft, in the 97 fathom level north, the ground is good; the lode is 2 ft. wide, producing 15 cwts. of ore per fathom; in the same level south the ground is good; the lode is 1 ft. wide, producing 8 cwts. of ore per fm. We hope to communicate the 87 fathom level with Young's shaft in the course of a fortnight. At Young's shaft, sinking below the 77 fm. level, ground good, lode 18 in. wide, producing 5 cwts. of ore per fm. In the 60 north the ground is moderate, lode 1 ft. wide, producing 7 cwts. of ore per fathom. At Webb's shaft, in the 70 south, the ground is good, lode 15 in. wide, producing 5 cwts. of ore per fm. In the 60 fm. level south the ground is moderate, lode 18 in. wide, producing 6 cwts. of ore per fm. At Maxwell's shaft, the lode in the 50 fm. level is still looking well, both north and south; we have, since our last report, set an additional pitch in the back, which looks very promising. We shall commence driving the 87 fm level south, at the engine-shaft, this week. The new boiler has been connected, and we are glad to say, is answering exceedingly well. The tribute pitches still look well.

WHEAL HAMLYN.—We have still hard ground in going south, but we hope to get through it soon. The western wall of the north and south lode is a very pretty one, but we have no eastern wall as yet. It appears that this hard ground has disordered the lode altogether. Phillips's lode in the Quarry level is as last reported.

WHEAL LANGFORD.—We have cleared the 20 fm. level about 40 fms. west of Dare's shaft, but have not reached the end as yet; this level appears to be driven on the south, or lead lode, which is about 2½ ft. wide, composed of flookan, spar, and prian, interspersed with lead, mundic, and jack—a very promising lode for lead and silver; but the copper lode, which is to the north of the former, is not cut into in this level as far as can be seen. The sumpmen are now engaged cutting a plat, which will occupy about four days, after which we shall commence clearing the level further, both east and west. The stopes in the back of the 10 fm. level are improved since my last, both on the copper and lead lodes. The stopes at the eastern point of the horse, on the silver lode, are just as last reported on, from which we have broken during the past week six bags of silver ore of moderate quality. Our stamps are waiting for the castings from the foundry, which I am daily expecting. We are preparing another parcel of silver-gossan, and also one of silver-lead, for the market.

WHEAL MARY ANN.—Pollard's shaft is sunk 9½ fms. under the 90 fm. level. The lode in the 90 fm. level, north of the shaft, is 3 ft. wide, and worth 9*l.* per fathom; it the same level south it is 3 ft. wide, and worth 8*l.* per fathom. In the 80 fm. level north the lode is 1½ ft. wide, and worth 6*l.* per fathom; in the winze sinking under this level it is 2 ft. wide, and worth 8*l.* per fathom; in the western part in this level, south of the shaft, it is 2 ft. wide, and worth 6*l.* per fathom; in the winze sinking under this level it is 1½ ft. wide, and worth 7*l.* per fathom; in the winze sinking on the lode it is 2 ft. wide, and worth 12*l.* per fathom. The lode in the 70 fm. level south is 1½ ft. wide, producing good stones of ore; in the winze sinking under this level the lode is 2 ft. wide, and worth 6*l.* per fathom; on the eastern part in this level it is 2 ft. wide, and worth 6*l.* per fathom. The lode in the 60 fm. level south is 1½ ft. wide, producing good stones of ore. The stopes generally are producing much as usual.

WHEAL MAY.—We have driven the 30 fm. level 4 fms. east of the engine-shaft, and there the lode is looking very kindly, composed of spar, mundic, and spots of ore. We have 3 fms. more to drive before we get under the winze where we took the ore from in the 20, which I hope will be completed within a fortnight.

WHEAL ROBERT.—Having this week opened further north on the caunter lode at surface, we have taken up very large rocks of mundic, intermixed with beautiful spots of couted ore and gossan; a finer lode on the back cannot be seen. Without the least exaggeration, it is my opinion that at the intersection of the middle lode with this caunter, for which in the 20 there is about 40 fathoms to drive, we shall meet with a very large deposit of good ore. We have a change in the ground in the east adit, and are expecting shortly to intersect the middle lode.

— *August* 25.—We have completed timbering up Collier's shaft as far down as the water will allow us. We have also met with a large stream of water in the eastern adit, and took the bearing of the middle lode, which is 1½° south of west and north of east; if it continues in this course it will be cut in a few fathoms more driving. The bearing of the cross-course, or caunter lode, is 15° west of north. A sketch of the bearings of the lodes shall be sent in a few days.

WHEAL RUSSELL.—An improvement is daily expected in the 48 fathom level east.

WHEAL SARAH.—The north lode, going east, is 6 ft. wide, including the flookan; the other part is composed of mundic and spar, mixed with yellow ore of good quality. The south lode, in driving west, is just as last reported, from 6 to 7 ft. wide, with occasional stones of grey and yellow copper ore, with more water oozing from it than before. I think these lodes will be productive of good results.

WHEAL TREASURY.—We beg to lay before you our report of the mine from the commencement, in April, 1850:—We have cleared up shafts from the surface to the adit, each about 22 fms. deep; and in the eastern part of the mine, we have discovered four new lodes, which can be cross-cut from the old shafts already opened. We have sunk one of these lodes on its course upwards of 20 fathoms, its width averaging about 18 in., containing a large quantity of very fine gossan and small portions of black copper. In the remaining 5 fms., the lode changed into decomposed quartz, peach, black and yellow copper ore, but not rich enough to save. We have driven about 4 fms. on its course; it is situated between two cross-courses, which are distant from each other about 40 fathoms, with every indication of making large deposits in depth. Our other workings have been chiefly confined to the old lodes, where we have raised copper ore to the amount of 211*l.* 5*s.* 2d.; and tin ore, 126*l.* 14*s.* 7d. In the western part of the sett, we have cleared the Old Treasury shaft, and fixed a ladder-road to the adit, driven a cross-cut south about 20 fathoms, and cut two lodes—the first about 7 fms. from the old shaft; the second, about 13 fms. The latter we have driven on its course 18 fms., which is about 18 in. to 2 ft. wide, orey throughout, carrying a very fine gossan, and every indication of making large quantities at 10 to 20 fms. deeper. You will perceive, by the cost-book, our expenditure has been about 600*l.* We would earnestly recommend the houses for the engine, smith and carpenters' shops being built before the winter setts in; at the same time endeavour to purchase a suitable engine.

WHEAL TREVELYAN.—The engine-shaft is sunk 10 fms. below the 28 fm. level; we shall begin to cut the plat, &c., on Tuesday. Clinche's lode, in the 28 fm. level, east of engine-shaft, is 8 inches wide, letting out a quantity of water. Sampson's lode, in the 18 fathom level, west of engine-shaft, is opening good tribute ground. Cock's lode, in the 18, east of Hare shaft, is 9 in. wide, with a little tin, letting out a quantity of water. Fenwick shaft is holed to adit on Richards's lode, and began to cut the plat, which will be finished about next Monday; the lode driving west is 12 in. wide, with a little tin. The tribute is looking just the same as when last reported. We shall sample next Tuesday about 5 tons of tin. We are getting on very well with the tin floors.

WHEAL UNY.—The engine-shaft, sinking on the copper lode, is now down 3 fms. under the 60 fm. level, the lode 6 ft. wide, composed of soft quartz, prian, flookan, &c., a very promising lode, and favourable ground for sinking. The lode in the 60 end west is much of the same character as when last reported on; we have cleared the 60 end east, and find the lode to be 10 ft. wide, six ft. of which has a very encouraging appearance to the south for copper ore, and the north part good saving work for tin. No alteration in the 30 cross-cut since my last.

WHEAL VICTORIA.—During the past week the shaftmen have sunk 3 ft. 6 in., making altogether 18 fms. 2 ft. 6 in. below the adit; in the past month the shaftmen have cut a plat and sunk 1 fm. 4 ft. 6 in. in the shaft, and put in the penthouse.

WHEAL WILLIAMS.—The fixing of pitwork and other shaft work arrangements named in my last, both in the middle and north lode engine-shafts, is complete, and the men again in regular course of sinking. There is nothing new to advise in the character of the lodes, there being but little done.

WHEAL ZION.—Since last report Vivian's engine-shaft has undergone no change, it is now 25 fathoms deep,—water somewhat quicker. Lemon's shaft is about 30 fms. deep from surface, and has become much harder during the past week, with an increase of water. The shaft still continues to be orey, and, altogether, looks very promising. Our sinking is at present very slow.

WOOD.—The lode in the end, south of south shaft, is just as last reported, producing good branches of lead. The lode in the end north of the shaft is improving, producing good stones of lead. We have taken a sample of the lead that is now on the ore floors, and forwarded it to the Tamar Smelting Company; the price offered is 15*l.* 6*s.* per ton. At the White Rock Wood shaft, the lode is producing good work for copper and silver, and still improving in driving north in size and quality. We have a good pile of work at surface, which we have commenced dressing to-day (Aug. 25), so that I hope in a short time we shall have a good pile of ore for sampling.

FOREIGN MINES.

ALTEN MINING ASSOCIATION.—[Estimated produce for July]:

Mines.	Tons.	Per Cent.	Copper.
Raipas	25	7	1·750
Old Mine	130	5	6·500
United Mines	20	6	1·200
Michell's	15	6	·900
Carl Johan's	4	10	·400
Total	*Tons* 194		10·750

Mining Report from the 27th July to the 6th August.

Raipas.—In the 30 fm. level, west from the bottom of the winze, the lode is about 6 ft. big, containing ore throughout, and wearing altogether a most favourable appearance; it yields about 7 tons per fathom. In the 30 east the lode is much disordered, and the produce from this bargain is in consequence very little; but we hope a change will soon take place, and that ere long it will be equal to that driving west. In the stope below the 20 the lode is 4 ft. in size, containing some rich ores, mixed with gossan, and yielding about 5 tons per fathom. The tributers in the shallow adit are working with spirit, and we have every reason to believe they will make very fair earnings. On the whole, the prospects are looking much better than for some time past.

United Mines.—We still continue to explore Ward's lode, under the 40, where the prospects have somewhat brightened, although the lode is still poor and at present unproductive. Woodfall's has somewhat improved; the returns have also increased, the quality of the ore is good, and the prospects look very flattering.

Old Mine.—No material change is perceptible in the workings at this mine. The tributers have resumed operations above Bergmester's sink, where we expect they will make some fair returns. The new level in the bottom of Slungi's sink has improved; it yields better returns of ore, and of a richer quality; the prospects here are very flattering. The roof stope in Slungi's sink still holds good, and yields remunerative returns. In other parts of the mine there is no alteration to note.

Michell's.—The tributers continue to return some small parcels of good ore from the backs of the small lodes on the mountains, which are small but remunerative. The south-west sink has somewhat improved, but it will not at present enable us to increase the returns.

LINARES MINES.—Received from Mr. Henry Thomas:—

Pozo Ancho, Linares, Aug. 15.—The lode on the north side of the engine-shaft, sinking under the 55 fm. level, is worth 1½ ton of lead ore in a fm., ground without change. The rise in the back of the 65, to meet the shaft, is worth 1 ton in a fm. The 65 fm. level, driving east of San Anton, contains a large lode, at present without lead to value. The 55 fm. level, driving west of Buena Ventura winze, is worth 3 tons of lead ore in a fm.; the stopes in this level, east of San Anton, are worth 1½ ton in a fm.; west of Las Nieves, the stopes are worth 2 tons in a fm. The 55 fm. level, driving east of Shaw's shaft, is hard, with an occasional spot of lead. There is nothing new in the cross-cut driving to get under San Juan shaft, nor in the sinking of this shaft. The 45 fm. level, driving east of La Esperanza, is worth 2 tons of lead ore per fm. The same level, west of La Casualidad, is without lead to value. The 31 fm. level, driving east of La Esperanza, is worth 1 ton per fathom. The same level, driving west from Thorne's shaft, is worth about 1½ ton of lead ore per fm. In the 20 fm. level, driving west from Thorne's shaft, the lode is worth 2½ tons of lead ore per fm. The cross-cut in the 31 fm. level, driving north, is still intersecting strings of lead, and we purpose continuing it till we reach the settled country. Men are engaged in cutting down Field's and Warne's shafts, and also in clearing some old workings on the back of the lode in San Jose, at present without anything new to notice at either of these points.

Ore weighed in, 53¼ tons: total in stock, 368 tons. Pig-lead smelted, 36½ tons: total pig-lead in stock, 518½ tons.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

THE TIN DISTRICT OF HELSTON, CORNWALL.—In referring, in the Mining Notabilia of last week, to the profitable and promising state of Trumpet Consols, Wheal Loveli, the Great Work, and Great Wheal Vor, we omitted to mention that Wheal Trannack (now called Trannack United Tin and Copper Mines) has, through the perseverance and interest of the London managers of the last proprietary, been disposed of to J. A. Joseph, Esq., 3, Sise-lane, City, who has already placed the whole of the new shares among his numerous and influential friends. The mine will be conducted upon the Cost-book System, and a first call, producing about 3000*l.* working capital, will be paid up as soon as all the necessary deeds are in order, which will be in a few days, as Mr. Popham, one of the lords, has recently been in town for the purpose of settling this subject. The management of the mine being, by agreement, left entirely under the control of Mr. Joseph augurs best success to the new proprietary, as far as strict integrity and business-like management can promote it. As to the probable result from the capabilities of the mine, we need only mention that Wheal Trannack is almost in the centre of the mines above alluded to, being situated west, and on the course of the lodes of Trumpet Consols. Wheal Trannack gave to the original adventurers, for a considerable time, a bi-monthly profit of from 2000*l.* to 3000*l.* from one lode alone; but the profits having been all divided without making provision for further opening the mine, and calls becoming necessary after a long succession of dividends, many of the adventurers became dissatisfied with the management and left the concern, and the mine had to be abandoned. It was partly resumed in 1850, by a small proprietary, who had not sufficient funds to do justice to the vast importance of this valuable mining property; but, through the present favourable change in the proprietors, management and capital, and the many natural advantages which the mine possesses for economical working, there being two powerful streams of water available for the working of all necessary machinery, and much useful work already executed, we have no doubt Trannack United Mines will soon form an important part of the favourite speculations in Cornish tin and copper mines. We hope soon to be able to give further authentic information respecting this undertaking.

CAMELFORD.—This neighbourhood is just now engaging the attention of many persons connected with the mining interest; and those who are intimately acquainted with the district justly entertain the idea, that a fine field for mining investment is there rapidly developing itself. To the mines already known, another is to be added—the Treburget United Mines, situated in the parish of St. Teath, three miles distant from Camelford. These mines are not exactly a new adventure; but hitherto they have been but very feebly and partially worked. They have, however, been sufficiently proved to satisfy the adventurers as to the valuable nature of their sett, but not sufficiently to bring the mines to maturity. To enable the company at once to employ steam-power, proposals were made to increase the number of shares, whereby the finances should be improved. This plan was adopted, and the new shares were readily taken up, principally by gentlemen in this city; and active and judicious operations are now being carried out—the nature and results of which will, from time to time, be reported to the public through the medium of your Journal.

The Old Fatwork and adjoining tin mines have been again put to work, a 36-in. steam-engine with stamps attached being in course of erection. From the produce of the lodes lately discovered, and which are now at surface, the yield is found to be, on an average, 1 ton of black tin to the 100 sacks. There is every probability that a vast quantity of tin will be returned from these mines within a very short time. The lode is full 2 ft. wide, with tin throughout.

STOKE CLIMSLAND CONSOLS.—An adit level has been driven on the course of a lode 50 fms., the lode being full 30 ft. wide, equal in every respect to the first laying open of the Devon Great Consols. Three cross-cuts have been driven through the lode to prove its quality, from whence stones of copper and rich silver-lead ores have been taken, weighing upwards of 14 lbs. in a stone. The sett is very extensive, and presents such advantages for working as are scarcely met with. The mine has been visited by many confidential agents of the neighbourhood, whose opinions coincide in this being the best gossan lode seen since the Devon Great Consols was first cut. No delay ought to take place in prosecuting this extraordinary concern, and the intentions of those concerned respecting it should be at once made known.

GOLD IN IRELAND—*(From a Correspondent).*—The utmost excitement has been occasioned by the discovery of gold on the Marquis of Sligo's estate, in Connaught. It has long been considered that the precious metal was to be found in that locality, and now, through the exertions of Dr. John Atkinson, the fact of its existence in considerable quantity has been proved beyond doubt.

It may be remembered, that we advertised the prospectus of the St. Aubin Coal and Iron Company. M. Cabrol, the director of the iron-works at Decazeville, in their vicinity, has in the French journals negatived, by the actual expenses incurred at their works, the possibility of the promises held forth by the statements of the company being in any way realised. He states that productions which are to be done for 100 fr. at St. Aubin cannot be executed, with all the appliances of labour and machinery of the most approved kind, at Decazeville for double the amount; and, notwithstanding the project has been brought forward under the sanction of the Count de Morny (the minister and friend of the President of the Republic), it has been characterised as a scheme, merely to act upon the gullability of John Bull.

In our advertising columns of this day will be found a notice of a new coal company, formed under the auspices and patronage of the South Wales and Great Western Company, for opening up the coal fields existing on those lines of railway. It will be seen that this company presents many and great advantages to the public, and likewise to shareholders, inasmuch as their liability is a limited one, and from the great respectability of the directors and promoters, there would appear to be a fair prospect of good and continuous dividends. A company of this kind has long been a desideratum, which the present association is likely to supply.

HARTOPP AND WEST KERRY MINING COMPANY.—From an announcement which appears in another column, it will be observed that Monday, the 30th inst., is fixed as the last day for receiving applications for shares. The intrinsic merits of the undertaking, and the disposition evinced on the part of the mining capitalist to embark in mines in Ireland, which we are pleased to find is much on the advance, will, doubtless, meet the views of the projectors, and be the means of affording additional employment to the peasantry. Besides the shares taken up in the first instance by the lord and those connected with the management, and their friends, we are given to understand the larger portion of the remaining shares have already been applied for.

NEW PATENTS.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

H. N. S. Shrapnel, Gosport, for improvements in ordnance and fire-arms, cartridges, and ammunition or projectiles, and mode of making up or preparing the same.

F. Dam, Brussels, for improvements in preventing incrustation in boilers.

J. G. Jennings, Great Charlotte-street, Blackfriars-road, for improvements in water closets, in traps and valves, and in pumps.

J. Roberts, Portsmouth, for improvements in the mariners' compass.

A. E. L. Bellford, Castle-street, Holborn, for improvements in the machinery and apparatus for printing fabrics and other surfaces.

P. J. Poggioli, Paris, France, for an improved medical compound.

G. Twigg, Birmingham, for certain improvements in the manufacture of buttons, and other dress-fastenings, and in the machinery and apparatus to be used therein.

C. Cowper, Southampton-buildings, Chancery-lane, for improvements in the application of iron to building purposes.

J. Fish, Oswaldtwistle, Lancaster, for certain improvements in looms for weaving.

J. Lawrence, Colnbrook, for improvements in brewing apparatus.

P. Amable de Saint Simon Sicard, Paris, for improvements in enabling persons to remain under water and in noxious vapours.

A. Crosse, Esq., Broomfield, Somerset, for improvements in the extraction of metals from their ores.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

J. Newman, Soho-square, colour-box.—S. S. Phillips, Chelmsford, hot-water stove.—T. Gibson, jun., Manchester, shirt front.—F. G. Yates, Winksworth's-buildings, lever knife.

PROVISIONAL REGISTRATIONS.

N. Bualgette, Devonshire-street, brickmakers' rotary-moulding table.—J. Birmingham, joiners' brace.—*Mechanics' Magazine.*

ACCIDENTS.

Cardiff.—A miner named Newton, was killed by an iron knee falling upon him at the [illegible] colliery.

Ruabon.—R. Griffith, was crushed to death by a train of tubs at the Broomside Pit.

St. Helen's.—T. Jenney, was killed by a fall of roof at the Coppers Hill Colliery.

Ayrshire.—A young man named Gregson, fell down the shaft at the new Colliery of Messrs. Wilson and Taylor, and was killed.

Rottenhill Colliery, near Glasgow.—As four men were employed working a force pump, two at a time, one of them left off; the pump going quick at the time, his partner attempted to get hold of the handle, but unfortunately missed it, and the handle caught him, and killed him on the spot.

Airdrie.—At Bargiddy Colliery, about [illegible] miles from Glasgow, the overman, J. Barrowman, was killed at the bottom of the [illegible] by the cage.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, August 27, 1852.

ENGLISH IRON.		per Ton.
Bar and bolt *a*	—	£5 15 0
In Wales *b*	—	- 5 5 0
In Liverpool *b*	—	- 5 10 0
In Staffordshire *a*	—	- 5 15 0
*Sheets, single *a*	—	- 7 15 0
* ,, double *a*	—	- 9 0 0
*Hoop *a*	—	- 7 0 0
*Nail rod, round *a*	—	- 6 5 0
,, square *a*	—	- 6 5 0
Rails (Wales) *c*	—	- 6 0 0
,, (Staffordshire) *c*	—	- 6 0 0
Pig, No. 1, Clyde *c*	—	- 2 4 6
3-5ths No. 1 & 2-5ths No. 3	—	- 2 4 3
No. 1, in Wales *b*	—	- 3 0 0
Stirling's Patent } Glasg.	—	- 2 10 0
Toughened Pigs } Ditto Wales	3 10 0	- 3 15 0
FOREIGN IRON. *a*		
Swedish	10 15 0	-11 0 0
Russian CCND	—	-17 0 0
Indian Charcoal Pigs in London	—	- 5 10 0
FOREIGN STEEL. *a*		
Swedish keg	—	-15 5 0
Ditto faggot	—	-15 0 0
SPELTER. *c*		
On the spot	—	-16 10 0
To arrive	—	-16 10 0
ZINC.		
In sheets *d*	—	-22 0 0

ENGLISH COPPER.		
Tile, 14 to 28 lbs. *b* ...p. ton	£102	10 0
Tough cake *b* ,,	102	10 0
Sheathing and bolts *b* ..p. lb.	0	0 11½
Sheet *b* ,,	0	0 11½
Bottoms *b* ,,	0	1 0½
Old *a* ,,	0	0 10½
Yellow Metal *b* ,,	0	0 9¾
Wetterstedt's Pat. Met. cwt.	1	10 0
FOREIGN COPPER. *a*		
South American ....p. ton	—	
ENGLISH LEAD. *a*		
Pig ....p. ton	18	0 0
Sheet ,,	18	10 0
FOREIGN LEAD. *a*		
Spanish, in bond ....p. ton	18	0 0
ENGLISH TIN. *e*		
Block ....p. cwt.	4	10 0
Bar ,,	4	11 0
FOREIGN TIN. *c*		
Banca ....p. cwt.	4	9 0
Straits (uncertified). ,,	4	6 0
TIN-PLATES. *b*		
IC Charcoal ...p. box	£1 7 6	- 1 8 0
IX Ditto ,,	1 13 0	- 1 14 0
IC Coke ,,	—	- 1 3 0
IX Ditto ,,	—	- 1 9 0
Canada plates *a* .ton	9 10 0	-10 10 0
QUICKSILVER *f* ....p. lb.	0 3 0	

Terms.—*a*, 2½ per cent. dis.; *b*, 3 ditto; *c*, nett; *d*, 1½ per cent. dis.; *e*, 2 ditto; *f*, 1¼ ditto; deliv. in Liverpool 10s. per ton less.—† Dis. for cash in 14 days, 10 per cent

The IRON MARKET presents the same lively appearances, and makers in Wales and Staffordshire generally show no anxiety to book further orders at present prices.

SCOTCH PIG-IRON has advanced 1s. per ton this week, and there are strong buyers at 45s. cash for Mixed Nos., and 46s. three months open.

BARS and RAILS are in steady demand, without alteration in prices.

SPELTER is firmer; holders ask 16*l.* 10s. on the spot.

EAST INDIA TIN has advanced 2*l.* per ton.

TIN-PLATES are also 6d. per box better; holders of coke ask 23s. per box.

GLASGOW, AUGUST 26.—There has again been considerable speculation in warrants for Scotch pig-iron during the past week, and the prices of these have been driven up considerably; while iron for shipment at the outports on the east and west coast has not advanced. The shipments are moderate, as also the demand for actual consumption. Warrants for mixed numbers, good brands, free on board here, are to-day worth 45s. per ton, cash.

MINES.—There has been more activity displayed this week in the share market, and a fair business doing in dividend mines, though with no material variation in price, except South Frances, which have sprung up to 165; Wheal Brewer to 29 and 30. United Mines are at 850; Basset, 530. In Bedford, Alfred Consols, Merllyn, South Tamar, West Providence, and Tremayne, business has been transacted at steady prices. In speculative shares, the preponderance of sellers naturally causes a fall, which has been, in some instances, submitted to, to effect sales, and still there are few buyers to be found inclined to do business at the present quoted rates; in fact, we hear of prices much under. In Cornwall, East Tolgus shares have advanced to 35*l.*; Wheal Clifford (which joins United Mines on the east), from 200*l.* to 300*l.*; North Pool to 220*l.*

In the Metal Market all is buoyant. East India Tin has advanced from 2*l.* to 3*l.* per ton, and Tin-plates, 6d. per box,—holders looking for a further rise,—British tin being likely to do so at once; the smelters are merely supplying their best customers from hand to hand, and declining large orders, or for forward delivery.—Copper and Lead continue in great demand.—Spelter, 6*l.* 10s. on the spot.—Scotch Pig-iron rose 1s. per ton, and makers of all sorts, in Wales and Stafford, are cautious in taking extended orders at the present quotations.

In the Bullion Market,—Mexican and South American dollars, buyers at 4s. 10⅝d. per oz. Bar silver containing gold, all gold above 5 grs. in the pound to be paid for, 5s. 0⅝d. per oz. standard. Bar silver without gold, 5s. 0⅝d. per oz. standard. Bar gold, 77s. 9d. per oz. standard. Fine cake silver, 5s. 4⅞d. per oz.

The sale of copper ore at Thursday's Ticketing was 2928 tons, amounting to 16,324*l.* 12s. 6d., the average produce and standard being 6⅛, 136*l.* 8s. The corresponding sale last month was 3460 tons, produce 6⅞, 129*l.* 4s., being an advance of 4*l.* per ton.

South Tamar, Trehane, Cwmystwith, Nanteos, Cwm Erfin, Penycofn, Lettenhein, Pantymwyn, Pen-yr-henblas, Westminster, Maesysafn, Jamaica, Milwr, Pantyffrith, Fron Fawnog, Rhewerth, Dyliffe, Cainsmore, Galena, Phosphate, and Minera, sold lead ores during the week.

Drake Walls, Georgia Consols, Charlestown United, Rix Hill, Ycoland Consols, Chyprase Consols, and Trevelyan, sold black tin during the week.

The following is a return of the calls made during July:—

Mines.	Per Share.	Amount.	Mines.	Per Share.	Amount.
West Wh. Alfred	£0 10 0	£2500 0 0	West Seton	£2 0 0	£400 0 0
Keswick	2 0 0	...1746 0 0	Devon and Courtenay	0 2 0	... 390 14 0
Lydford Consols	0 5 0	...1264 0 0	North Buller	0 7 6	... 384 0 0
Wheal Carpenter	1 0 0	...1024 0 0	Hennock	0 5 0	... 375 0 0
Wheal Trefusis	2 0 0	...1024 0 0	East Wheal Reeth	0 7 6	... 375 0 0
Callington Mines	1 0 0	...1000 0 0	Wheal Chiverton	0 6 6	... 332 16 0
Allt-y-Crib	0 15 0	... 936 0 0	West Polgooth	0 1 0	... 325 0 0
Cubert Mines	0 2 0	... 900 0 0	Tregardock	0 10 0	... 300 0 0
Kilbricken	0 5 0	... 825 0 0	West United Hills	0 5 0	... 277 10 0
Wheal Uny	0 15 0	... 768 0 0	Carvannall	0 5 0	... 264 0 0
Wheal Unity	0 5 0	... 750 0 0	Wheal Catherine	0 5 0	... 256 0 0
Wheal Bawden	0 5 0	.. 650 0 0	Wheal Neptune	0 5 0	... 256 0 0
Nansegollan	2 0 0	... 640 0 0	Wheal Venton	0 5 0	... 256 0 0
Wheal Speedwell	0 10 6	... 524 16 0	Mill Pool	0 5 0	... 256 0 0
East Wheal George	0 5 0	... 512 0 0	Wheal Hamlyn	0 1 0	... 204 8 0
Appledore	0 10 0	... 512 0 0	Wheal Robert	0 1 0	... 200 0 0
East Buller	0 10 0	... 512 0 0	Raleigh	0 5 0	... 120 0 0
Wheal Sidney	0 10 0	... 512 0 0	North Trelawny	0 2 0	... 106 0 0
Mary Tavy & P. Tavy	0 10 0	... 500 0 0	St. Ives	0 0 6	... 102 0 0
Bryntail	0 10 0	... 500 0 0			
Total amount					£22,780 4 0

At Great Work Consols quarterly meeting, on May 25th, the accounts showed—Black tin sold to end of March, 3333*l.* 18s. 6d.; materials sold, 1*l.* 8s. 3d.=3335*l.* 6s. 9d.—Three months' cost, 2561*l.* 6s. 6d.: shows profit, 774*l.* 0s. 3d.; add balance in hand, 419*l.* 15s.=1193*l.* 15s. 3d.—from which deduct dividend, 833*l.*, leaves balance to next account, 360*l.* 15s. 3d. A dividend of 7*l.* per share was declared.—At the quarterly meeting, on Tuesday last, the accounts showed—Black tin sold to the end of June, 3789*l.* 1s. 1d.; materials sold, 39*l.*=3828*l.* 1s. 1d.—Less costs, three months ending June, 2759*l.* 18s. 11d.: showing profit of 1068*l.* 2s. 2d.; add balance last account, 360*l.* 15s. 3d., makes 1428*l.* 17s. 5d.—from which deduct dividend, 892*l.* 10s.: leaves balance to next account, 536*l.* 7s. 5d. A dividend of 7*l.* 10s. per share was declared.

At South Wheal Tolgus meeting, on Tuesday, the accounts for May and June showed—Balance from last account, 882*l.* 16s.; ores sold (less dues), 2274*l.* 16s. 11d.=3157*l.* 12s. 11d. Mine costs and merchants' bills, 1600*l.* 19s. 8d.; dividend of 4*l.* per share (1024): leaving balance in favour of adventurers, 532*l.* 13s. 3d.

At Bedford United Mine bi-monthly meeting, on Wednesday, the accounts showed—Balance last account, 892*l.* 19s.; received for copper ore and carriage, 1968*l.* 1s. 8d.=2861*l.* 0s. 8d.—Cost-sheet May, 547*l.* 6s. 7d.; June, 529*l.* 15s. 9d.; income-tax, 28*l.*; secretary, office, and printing, &c., for three months, 29*l.* 16s.: leaving balance next account, 1726*l.* 2s. 4d. Ore sold since, 2306*l.* 5s. 8d., makes 4032*l.* 8d. Estimated cost and expenses for July and Aug., 1130*l.*: shows assets over liabilities, 2902*l.* 8s. A dividend of 5s. per share was declared. The 115 fm. level is worth 5 tons of copper ore per fm.; the pitch in the back west is working at 2s. 6d. tribute. The 103 is worth 2½ tons per fm.; the pitches in the back yielding well, and of good quality ore. The 90 is worth 2 tons per fm. The 80, about 4 tons per fathom; a pitch working in the bottom at 4s. tribute, yielding 6 tons of ore per fathom.

At Merllyn Mine bi-monthly meeting, on Thursday, the accounts showed—Balance in hand last account, 915*l.* 16s.; lead ore sold, 2427*l.* 10s.; interest, 1*l.* 16s. 6d.=3345*l.* 2s. 6d.—Labour cost June, 363*l.* 16s. 9d.; July, 406*l.* 4s. 7d.; dues, 124*l.* 5s.; merchants' bills, 72*l.* 4s. 11d.; dividend, 1240*l.* 2s.: leaving balance to next account, 1138*l.* 9s. 3d. A dividend of 5s. per share was declared. The engine-shaft is completed to the 46, and the level driven 3 fms. east and west; the lode west is 9 in. wide, producing some good stones of lead; east, 1 foot wide, unproductive. Garden's shaft has been sunk below the 36, producing 2 tons of ore per fathom. The lode in the east varies from ½ a ton to 1½ ton of ore per fm. The 26 west, ⅓ a ton.

The Botallack Mine accounts for April, May, and June, show—

Balance last account	£ 203 9 3	
Tin sold	2565 13 2	
Copper sold	875 16 6	= 3644 18 11
Labour cost	£1852 4 8	
Merchants' bills, carriage, &c.	943 12 8	
Dividend (August 24) of 5*l.* per share	500 0 0	= £3295 17 4
Leaving balance in favour of adventurers		£ 349 1 7

The St. Ives Consols accounts for the quarter ending June show:—

By black tin sold	£3269 9 8	
Copper ores	179 6 8	—£ 3448 16
Labour cost and carriage	£2314 4 6	
Coals	207 16 9	
Merchants' bills	529 5 11	—£ 3051 7 2
Showing profit of		£ 397 9 2
To which add balance in favour of adventurers in March last		73 7 9
Total in favour of adventurers		£ 470 16 11

By dividend now declared of 4*l.* per share (376*l.*), leaves to next account, 94*l.* 16s. 11d. Tin sold, 68 tons, average about 48*l.* per ton.

Boscaswell Downs Mine accounts for three months ending June show

Labour cost and carriage	£ 1076 0 4	
Coals	120 6 7	
Merchants' bills	202 8 9	—£ 1398 15 8
By black tin sold	£ 1443 8 9	
Copper ore	209 4 0	
Old iron	50 15 4	—£ 1703 8 1
Showing a profit of		£ 304 12 5
Balance against adventurers end of March		1018 11 8
Leaves balance against the mine of		£ 713 19 3

Tin sold, 28 tons 14 cwts. 0 qrs. 21 lbs., average about 50*l.* per ton.

Aug. 17.—This mine is very much improved both for tin and copper, particularly the latter, and will soon be again in her old position—viz., amongst the dividend-paying mines.—T. TREWEEKE, jun.

The Wheal Owles accounts for three months ending June show—

Tin sold	£3416 9 3	
Received for leavings, tin, &c.	180 11 4	
Subsist receipts	81 3 8	= 3678 4 1
Labour cost	£1861 9 4	
Carriage	123 10 0	
Lord's and bounds' dues	57 4 8	
Merchants' bills	812 6 9	
Stamps' rent, 10*l.*; subsist advances, 90*l.* 14s. 1d.	100 14 1	
Balance against adventurers last account	689 3 8	= £3644 9 1
Leaving balance in favour of mine (Aug. 20)		£ 33 14 1

At the Callington Mines adjourned meeting, at the offices at Salvador-house, on Tuesday (Samuel Bettely, Esq., in the chair), the 24 new rules, for the future government of the company, were read over *seriatim*, debated upon, and adopted unanimously, as will be seen by the resolutions in our advertising columns. The shares are now 5000, the board of directors superseded, and a treasurer in London will in future conduct the proceedings, holding meetings bi-monthly, according to the regular Cost-book System. [The report will be found among the British Mines.]

At Wheal Prudence half-yearly meeting, on the 23d inst., the accounts showed—Balance last account, 49*l.* 15s. 1d.; cost for Feb., 28*l.* 3s. 2d.; March ditto, 17*l.* 4s. 7d.; April, 39*l.* 3s. 3d.; May, 33*l.* 2s. 6d.; June, 18*l.* 14s. 6d.; July, 22*l.* 1s. 3d.=208*l.* 4s. 1d.—Call in Feb., 128*l.*; received for 1½ ton of mundic, 12s.: leaving a balance to next account of 79*l.* 12s. 1d. A call of 12s. 6d. per share was made.

At the South Plain Wood quarterly general meeting, on the 20th inst. (Thomas Camplin, Esq., in the chair), the accounts showed—Balance last account, 130*l.* 17s. 11d.; calls received, 160*l.* 4s.=291*l.* 1s. 11d.—Labour cost for April, 59*l.* 2s. 3d.; May, 71*l.* 15s. 10d.; June, 57*l.* 7s. 8d.; merchants to end of April, 71*l.* 0s. 4d.; commission, &c., 4*l.* 2s. 4d.: leaving balance to next account, 27*l.* 13s. 6d.; add arrears of calls due, 16*l.* 10s., makes 44*l.* 3s. 6d. assets.—The liabilities amount to 67*l.* 18s. 7d. A call of 4s. per share was made. Nicholson's winze is down to the 10 fathom level, lode 9 ft. wide, worth ½ ton of ore per fathom. Nicholson's shaft is down to the 20, ground a light killas, and promising; they are preparing to sink it deeper. In clearing ground for bob-pit, they have discovered a lode 4 feet wide, running east and west, and underlaying north 3 ft. in a fm., composed of peach, gossan, killas, and spar, and propose sinking on the back of it, on Horsey Hill side.

At Bridford Consols Mine quarterly meeting, on August 20, the accounts showed—Call received on 1180 shares, 590*l.*—Balance last account, 3*l.* 4s.; costs for May, 28*l.* 8s. 1d.; June, 41*l.* 10s. 10d.; July, 85*l.* 17s. 10d.; commission, 4*l.* 2s. 10d.: leaving balance to next account, 426*l.* 16s. 5d. Capt. Michael W. Martyn was appointed superintending captain at 2*l.* 2s. per month, and Messrs. Loam's tender for a 40-inch cylinder engine was accepted. The engine-shaft is down 5 fms. from surface; the adit will come in at 10 fms. depth. The foundation for engine-house is taken out, and the masons' work set. The smithy, office, &c., are nearly completed.

At the Halamanning and Croft Gothal Consolidated Mines bi-monthly meeting, on Tuesday (Francis Ommanney, Esq., in the Chair), the accounts were examined and passed, and, as a strong feeling existed to rid the undertaking of its liabilities, a call of 10*l.* per share was made, and which, there is little doubt, will be the last. Reports from Capts. Miners and Vivian, of Carn Brea, approving of the management, and speaking highly of the prospects, were also read. The weekly report of Capt. Henry Thomas, the superintending captain, stated that since the visit of Capt. Miners a fresh discovery had been made. "That from 30 fms. to the west of Orchard shaft to 30 fms. east of the Eastern Park shaft, in all a distance of 200 fms., there was in the 46 fm. level a course of ore standing the whole distance." It was announced that the first monthly sampling will be held this week, when it is expected that 240 tons will be ready; and this quantity would have been much greater but for the delay in getting the steam whims to work. Mr. Francis Pryor, who has lately become a shareholder, after having visited the mines, was present at the meeting, and explanations were given by him and Mr. Winterbottom. Mr. Pryor expressed himself satisfied of the great value of the mines, and we understand it is the intention of the committee to avail themselves of his co-operation in the management.

At Tremar Mine bi-monthly meeting, on the 17th instant, the accounts showed—Balance last account, 165*l.* 4s. 10d.; received calls, 329*l.* 5s.=494*l.* 9s. 10d.—Labour cost for May, 66*l.* 5s. 5d.; June, 63*l.* 5s. 11d.; merchants' bills, 286*l.* 1s. 9d.: leaving balance to next account, 78*l.* 16s. 9d.; arrears due on old calls, 73*l.*; on that of the 29th March, 312*l.* 10s.; and 16th June, 218*l.*: makes 682*l.* 6s. 9d. assets, against 746*l.* 19s. 8d. liabilities, showing deficiency, 64*l.* 12s. 11d. A call of 5s. per 833d share was made. The engine-shaft is down to the 24 fm. level, from whence a cross-cut south of 2 fms. intersected a branch about 18 in. wide, producing some good stones of ore: 4 fms. have been extended on its course. They estimate having 6 fms. further north in the cross-cut to reach the north lode—ground rather hard.

At the Coed Mawr Pool Finance Committee meeting on Saturday, the accounts showed a balance in hand of 135*l.* 11s. 9d., after defraying all expenses to that day. The purser reported that, according to instructions received at the last bi-monthly meeting, no more ore had been taken up, but all efforts were directed to completing the union of the levels, and sinking the No. 1 shaft an additional 10 fms., with the view of laying open a large field for combined operations, the ore being ascertained to be abundant in the three lodes already laid open. A short time would accomplish these objects, when the produce will be again in the market in quantities to enable a dividend to be declared. In addition to these works, operations have been carrying on in the old Roman ground, which crosses the sett at the extreme east, where a fine lode was laid open last month, of which a sample was before the meeting. The prospects were in every respect so satisfactory, that to afford facilities for extended operations, and to carry out fully and efficiently the works now in hand, the original proprietors of the sett, who still held a large interest therein, had voluntarily offered to apportion the proceeds of 100 shares, to be sold at the market price, as additional capital, which could not be estimated at less than 1000*l.* The thanks of the committee were voted for this liberality. The purser also communicated another gratifying fact, that an arrangement had been made with the landowners for opening a communication with the lakes in the higher ground adjoining, by which an abundant and never-failing supply of water would henceforth be ensured. Joseph J. W. Watson, Esq., F.G.S., who had surveyed the sett in May last, voluntarily attended this meeting, and explained to the committee his views and opinions on the nature and progress of the works in operation, which he fully approved. He said every confidence might be felt, that with the extension of the works the returns would be abundant. He estimated the produce, at the lowest, at 100 tons per month, independent of the lode in the old Roman works, and any further discoveries on the lodes marked Nos. 4 and 5, which bear every promise of being productive.

At Wheal Treasury meeting, held yesterday, the accounts showed—Labour cost from Nov., 1851, to July 9, 1852, 172*l.* 9s. 1d.; merchants' bills, 15*l.* 15s. 3d.=188*l.* 4s. 4d.—Balance last account, 7*l.* 6s. 6d.; tin sold in the stone, 8*l.* 6s. 3d.: leaving balance to next account, 172*l.* 11s. 7d. It was resolved to divide the mine into 4000 shares. To pay off liabilities, and for further prosecution of the mine, a call of 2s. 6d. per share was made. A committee of five were appointed, to select London offices, recommend a secretary, banker, &c.; and the agents received instructions to look out for a suitable engine, and, when prepared, to recommend it to the company—a special meeting to be called to consider the same.

At East Gunnis Lake Junction Mines bi-monthly meeting, on Wednesday, the accounts showed—Balance last account, 164*l.* 5s. 8d.; calls received, 373*l.* 2s. 6d.=537*l.* 8s. 6d.—Cost-sheet for May, 127*l.* 6s. 5d.; ditto June, 165*l.* 7s. 10d.; secretary, office, and printing, three months, 18*l.* 10s. 6d.: leaving balance to next account, 226*l.* 3s. 5d. Arrears of calls due July 17, to receive, 126*l.* 17s. 6d., and estimate of 34 tons of copper ore, 170*l.*—makes 523*l.* 0s. 11d. assets; being a surplus over liabilities of 185*l.* 1s. 6d. The 36 east is turning out about 2 tons of copper ore per fm.; no operations above the 24 except on tribute. In the back of the 16 the tributers on the middle lode will have from 6 to 8 tons of very good ore; as the lode has not been seen below, a cross-cut will be put out at the 36 to intersect it, probably in three months. The engine-shaft will be resumed sinking shortly.

At Perran Wheal Jane Consols meeting, on Thursday, the accounts showed—Receipts, 931*l.* 5s.; expenses, 585*l.* 2s. 4d.: leaving at banker's, 346*l.* 2s. 8d. The assets were—Balance at banker's, 346*l.* 2s. 8d.; arrears of call paid at meeting, 43*l.* 15s.; 100 shares held by the company, 25*l.*=414*l.* 17s. 8d.—Liabilities, 75*l.*: leaving balance in favour of adventurers, 339*l.* 17s. 8d.

At Bottle Hill Mine special general meeting, on Tuesday, the accounts showed—Balance at bankers, 2*l.* 9s. 4d.; by call of 10s. on 4550 shares, 2275*l.*; interest, 5s.; received for ore sold, 928*l.* 9s. 1d.=3206*l.* 3s. 5d.—Balance last account, 61*l.* 18s.; mine cost, 1693*l.* 19s. 6d.; balance of new engine, 1293*l.* 2s. 6d.; office expenses, advertising, printing, &c., 54*l.* 8s. 3d.: leaving a balance to next account of 102*l.* 15s. 2d., the liabilities being 1186*l.* 10s. 4d. A deputation of leading shareholders had just returned from the mine, and handed in an estimate of 1450*l.* for work needful for deepening the mine from the 50 to the 60 fm. level, including the cost of two wheels, stack buildings, &c. A call of 10s. per share was made. The adit level is 60 fms. below surface. The stopes in the back of the 50 east and west are worth for tin from 30*l.* to 40*l.* per fm. The winze below the 34 is worth for tin from 20*l.* to 30*l.* per fm.

At Great Bryn Mine meeting, on Thursday, a very satisfactory report was read and adopted. The managing committee, and especially Mr. Lelean, the active secretary, received a unanimous vote of thanks from all present, as will be seen by reference to our advertising and other columns. The present certificates (6500) are called in, and a new issue of 6750 will immediately take place. Great confidence is entertained that the engine will go to work in October, and immediate sales of tin and copper effected.

At Bicton Consols Mine special meeting, on Thursday, the report of a deputation appointed to visit the mine was read, and proved of a satisfactory character, recommending the levels to be extended on for two months longer in the 14 and 34, and a cross-cut put out, and then report the result to another meeting. The funds in hand will enable them to do so. The machinery works well. The stratum is congenial for ore.

At the West Wheal Towan bi-monthly meeting, on Wednesday, the accounts showed—Mine costs for May and June, 1936*l.* 11s. 7d.; balance against adventurers last account, 624*l.* 3s. 7d.=2560*l.* 15s. 2d.—By tin sold, 557*l.* 6s. 8d.; call of 2*l.* 10s. per share (1250*l.*): leaving balance against the mine of 753*l.* 8s. 6d. The report stated that the west shaft at Kerriack Point had been sunk to the 25 fm. level, where it intersected Taylor's lode, which is 3 ft. wide, composed of spar, mundic, and copper ore. The lode in the 35 fm. level, east of Caroline's shaft, is large and kindly, yielding fine stones of tin. In the 15 east it is turning out good work for tin; the level west has passed through good tribute ground. The lode in the 20 fm. level east, on Wheal Towan lode, is 2½ feet wide, spotted with copper ore. Some lead ore has been met with in the cross-course in the 20 fm. level, west of Taylor's shaft, worth about 15*l.* per ton. The return of tin for the next two months will be about 20 tons.

The excitement occasioned by the great riches discovered in the United Mines, Gwennap, has had scarcely time to cool down, when the startling fact becomes known that the Cornish shareholders therein, together with that fortunate London holder, Thomas Field, Esq., have, with their united influence, obtained the extensive, and hitherto highly profitable setts of Poldice, Wheal Unity, and a vast extent of the adjacent ground, at the liberal dues of 1-24th; but for the first year and a half the lords, to encourage the party while making the necessary outlay for unwatering the mines, require no dues whatever. Such is the avidity with which the shares have been subscribed for, that few remain unappropriated.

At East Wheal Russell, a very important discovery has taken place in cross-cutting the tunnel level; the lode producing large rocks of grey and yellow ore of superior quality, worth 17¾ per cent. for copper ore; 5 feet of it has been seen up to yesterday (26th inst.), but no wall in the south part has yet been met with, neither is it expected for some 20 ft. driving, the lode being 30 ft. wide at surface. It is confidently expected that this mine will, ere long, be one of the most productive in the Tavistock district, which may be considered the Gwennap of Devon. Great credit is due to Mr. J. H. Hitchins, for his long, firm, and confident exertions in bringing this adventure to its present productive position.

At Tavy Consols, they have still a good lode in the 36 fm. level; the stopes are turning out well. The 20 fm. level, east of shaft, is much the same, worth ⅓ ton of ore per fathom. The 24 fm. level east is looking more promising than ever, which augurs well for the continuation of the ore in the 36 fathom level.

At North Tamar, the 36 fm. level driving south is still looking well; they are saving some fine work for silver-lead. The 25 is much the same.

At South Tolgus Mine, the south lode in the 66 fm. level is turning out 1 ton of copper ore per fathom. Youren's lode, in the 54 west, is yielding 2½ tons of rich quality ore per fm., worth 15*l.* per ton. The 42 is saving work. Other parts of the mine are without alteration.

At East Wheal George, the operations were wholly at surface during the last week, in getting forward the new wheel, which will be of considerably increased power, and enable them to follow down the lodes to a greater depth.

At Devon Burra Burra, the Great Brake lode is carrying more ore, and the water increasing as the level approaches the old eastern shaft, which is now being sunk for the purpose of communicating with the 10 fm. level; from the lode in this shaft several barrows of rich yellow ore have been broken. The middle lode has been driven on 18½ fms., and is carrying ore all the way; this lode will now set on tribute. The cross-cut has been continued south, and another branch cut 6 inches wide, underlaying south, composed of mundic and rich yellow ore. At the Gate-post lode, the wheel-pit will be completed in a week; the shaft is down to the adit, and is being timbered up.

At the Keswick Mine, the 20 fm. level north, at Brandley, is worth 2 tons of lead per fathom.

At Tregardock Mine, the drawing apparatus and dressing-floors are progressing favourably, and many tons of lead are now at surface.

At Devon Consols North, the boiler is in the house, the capstan being erected, and the pitwork in the shaft. The engine will be ready to go to work on Thursday next.

Mr. Henry Peet, of St. Helen's-place, has been appointed the secretary to the North Tamar Mines.

During the week shares have changed hands in United Mines, Wheal Basset, South Tolgus, Wheal Brewer, Merllyn, South Tamar, Bedford, Wheal Clifford, Wheal Reeth, North Pool, Tincroft, West Wheal Fanny, Tremayne, West Providence, Clive, Cubert, Great Bryn, Neptune, Wheal Fortune (South Tawton), Tavy Consols, Great Baddern, Trefusis, Garreg, Trevelyan, Tregardock, East Tamar, Prince Albert, Allt-y-Crib, Peter Tavy and Mary Tavy, Kilbricken, South Carn Brea, Wheal Robert, East Russell, Ockment Consols, Wheal Trewane, Nant-y-Car, Dalrhw, North Wheal Buller, Zion, Cwmdyle Rock, Chyprase Consols, Wheal Carpenter (South Sydenham), West Polgooth, Beacon, Elizabeth, Gawton United, Appledore, Augusta Consols, Wheal Tehidy, Britannia, East Tolgus, Carvannal, South Charlotte, Budnick Consols, Mining Company of Ireland.

In Foreign Mines, transactions have taken place in Imperial Brazilian, St. John del Rey, Cobre, United Mexican, Grand Duchy of Baden, &c.

At the Liguanea and General Mining Company of Jamaica meeting, on Thursday, it appeared that a change in the local direction had taken place, to the satisfaction of the board of directors. That an additional tract had been acquired, which held out good promise; and, furthermore, that the capital subscribed was considered ample for the purposes of the company. Some little discussion arose on the apportionment of certain shares to the projector; but, in the end, the meeting terminated in good spirit, and with a determination to prosecute the mine with energy.

The Alten Mining Company has received advices to the 24th August. The produce of copper ore for July was 194 tons, yielding 10¾ tons of copper. At Raipas, the lode in the bottom of the 30, west from the winze, is 6 ft. wide, orey throughout, yielding about 7 tons per fm. The stopes in the bottom of the 80 are turning out rich ore, equal to 5 tons per fm. Woodfall's has improved, and the quality of the ore is good. The prospects are flattering.

The Linares Mining Company has received advices from Mr. Henry Thomas to the 15th August. Ore weighed in, 53¼ tons: total in stock, 368 tons. Pig-lead smelted, 36⅓ tons: total in stock, 518½ tons. The lode north of engine-shaft, below the 55, is worth 1½ ton of lead ore per fm.; the rise in the back of the 65 about 1 ton; the 55, west of Buena Ventura winze, 3 tons; the stopes east of San Anton 1¼ ton; the stopes west of Las Neives 2 tons; the 45, east of Esperanza, 2 tons; 31 east 1 ton; west of Thorne's 1½ ton; 20 west 2½ tons per fm.

At the Victoria Gold Mine bi-monthly meeting, on Wednesday, it was stated that a corps of 12 miners, with an experienced mining captain, a superintendent, and purser, well supplied with implements, had that day sailed from Liverpool for Port Philip. It was resolved that similar detachments should follow as early as practicable, in succession; to accomplish which, further shares should be appropriated.

The gold mining shares this week have not attracted any increased attention, business generally continuing dull, prices in most cases remaining stationary: the descriptions which chiefly show firmness are Nouveau Monde, Port Philip, West Mariposa, Colonial Gold, and Australasian—while shares in several of the other companies, which have been for a long time quoted in the House at a depreciated price, have actually been done so low as 7s. 6d. per 1*l.* share. The cause of this depression is to be found in the general distrust that has been excited by the absence of official information from the directorates as to the position and progress of the several companies. Great neglect appears also to have been shown by the managers at the seat of operations. Notwithstanding the unfortunate *contretemps* which may have arisen, it was their duty to afford the directors the earliest account of their status; from this culpable inertness the present stagnation is a natural consequence, and until some decided information is obtained people will not be inclined to speculate in these adventures, which, from absence of communication from the localities, seem to be almost fabulous. The mail is due next week from California, and unless some decided results are obtained from that quarter, a further depreciation, if possible, must ensue; and this will, no doubt, have a great effect on public enterprise in our Australian colonies. As to the production of the gold mines, it is incumbent on the promoters, projectors, and directors of the several companies to afford instant information to their shareholders, unless they would render themselves liable to having concocted these adventures merely for Stock Exchange purposes.

The latest quotations are—Agua Fria, par to ¼ prem.; Anglo-Californian, ⅛ to ¼ prem.: Australasian, ¾ to 1 prem.; Australian Freehold, ¼ to ½ dis.: Ave Maria, ¼ to ⅛ dis.; British Australian Gold, ¾ dis. to ⅛ dis.; Carsons Creek, ⅛ dis. to ⅛ prem.; Colonial Gold, ⅛ to ⅝ prem.; Golden Mountain, ⅓ dis. to par; Lake Bathurst, ⅛ to ⅛ dis.; Liberty, ⅛ to ¾ prem.; London and Californian Gold Quartz, ⅛ to ¾ dis.; Maraquita, ⅛ dis. to par; New Granada, ¾ to ¼ dis.; Nouveau Monde, ⅜ to ⅝ prem.; Port Philip, ⅛ to ⅜ prem.; Quartz Rock, ⅛ dis. to par; West Mariposa, par to ⅛ prem.; Yuba, par to ¼ prem.

Grand Duchy of Baden, par to ⅛ prem.; Connemara, 1 to 1⅛ prem.; Glenaulin, ⅛ to ⅜ prem.; Kenmare, ⅛ to ⅜ prem.

Ebro Canal, ⅝ to ¾ prem.; Victoria Dock, 3 to 3¼ pm.; Australian Bank, 2¾ to ⅝; Electric Telegraph Company of Ireland, ¾ to ⅞ prem.; North of Europe Steam, 3-16ths to 5-16ths prem.; Netherlands Land, 5-16ths to 7-16ths prem.; Chiriqui Road, ⅛ to ⅜ prem.; Fairhead Harbour, ¼ to ½ pem.

Considerable business has been transacted during the week in the shares of the Britannia Company, and they have been in demand at advanced quotation without producing adequate sellers. In the absence of information a large margin was demanded by the jobbers, the quotation being ¼ dis. to ¼ prem., but the cause of the enquiry for them is now shown in our usual notice in reference to Gold in England.

We are informed that the Royal Australian Banking Company will have an early settling day appointed by the committee of the Stock Exchange, and this arranged, the company may shortly taking a leading position in banking operations. Transactions have taken place in the above shares at from ⅜ to ⅞ premium.

The Spanish proprietary at the iron-works at Pola de Lena, as well as those at Mieres del Camino, formerly belonging to the English Asturian Company, have established an agency in Madrid for the sale of their iron and steel, which, according to the Madrid journals, is of good quality. While in possession of the English proprietors, although 200,000*l.* was spent, nothing was realised.

Business in Bank shares has not been large, but there are symptoms of a revival of the former demand. Prices are generally firm. Australasia, 56½; Colonial, 15¾; London Joint-Stock, 19; Provincial of Ireland, 46¼; Union of Australia, 50½; New, 6 6¼. London Chartered Bank of Australia shares are quoted 2⅝ to 2⅞ prem.

Dock stocks are very firm; and London and St. Katharine exhibit a slight advance. Commercial stock is marked 105; East and West India, 168; London, 130½; St. Katharine, 84. Victoria Dock shares are quoted 3 3¼ to 3⅛ prem.

Steamboat shares are also well supported, with the exception of Royal Mail Steam, which have been sold at a reduction. The last prices are—Australian Royal Mail, 4; General Screw Steam Shipping, 50½; Peninsular and Oriental, 85 ½; New, 36 ½; Royal Mail Steam, 79¾. Shares in the new North of Europe Steam Navigation Company are quoted ⅛ to ¼ prem.

Insurance shares are quiet at former quotations, with the exception of an improvement in Atlas shares. The present quotations are—British Commercial, 7; Church of England, 3½; Clerical, Medical, and General, 19 ½ ex bonus; Equity and Law Life, 5¼; English and Scotch Law Life, 3⅝; European Life, 14; Family Endowment, 3¼; Legal and General Life, 7⅜; London Ship, 28½; Medical, Invalid, and General, 2¾; National Loan Fund, 2½; National Provincial, 1⅛; Professional Life, ¾; Victoria Life, 5 5⅛.

Miscellaneous shares are quoted—Assam Tea Company, 10½; Auction Mart, 26; Australian Agricultural, 20; Canada Company, 50; Hudson's Bay Stock, 215; Hungerford, 47; London Institution, 5; Price's Patent Candle Company, 24½; South Australian, 22½; Crystal Palace, 5 4⅜.

LEAD ORES

Sold at Aberystwith, on the 23d August.

Mines.	Tons.	Price.	Purchasers.
Trehane	50	22 13 0	Locke, Blackett, & Co.
Cwmystwith	30	£11 10 0	Newton, Keates, & Co.
ditto	30	11 10 0	Panther Smelting Co.
ditto	30	11 10 0	Sims, Willyams, & Co.
Nanteos	60	11 7 6	Walker, Parker, & Co.
Cwm Erfin	36	14 14 6	ditto
Penyceefn	26	15 10 6	Sims, Willyams, & Co.
Lettenhein	14	11 2 6	ditto

Ticketings at the King's Head Hotel, Holywell.

Pantymwyn	30	£11 0 0	Walker, Parker, & Co.
Pen-yr-henblas	13	11 0 6	ditto
Westminster	30	11 12 0	ditto
ditto	40	11 13 0	J. P. Eyton.
ditto	50	11 14 0	Walker, Parker, & Co.
ditto	50	11 14 6	ditto
Macsysafn	32½	11 10 6	ditto
ditto	32½	11 10 6	Newton, Keates, & Co.
ditto	2	14 12 0	Walker, Parker, & Co.
Jamaica	30	10 11 6	ditto
Milwr	15½	12 0 0	ditto
ditto	15½	12 0 0	Newton, Keates, & Co.
Pantyffrith	15	12 3 0	J. P. Eyton.
Fron Fawnog	8½	10 18 0	Walker, Parker, & Co.
Rheweith	6	12 10 0	Newton, Keates, & Co.
Dylife	30	12 0 6	ditto
Cairnsmore	42	11 2 0	ditto
Galena	9½	13 7 6	ditto
Phosphate	7	5 5 0	ditto
Minera	20	11 7 0	Walker, Parker, & Co

Sold at the Mine, on the 21st August.

South Tamar	85	£19 1 6	Tamar Smelting Co.

BLACK TIN

Mines.	Tons.	Price per Ton.	Purchasers.
Drake Walls	3¼	£58 0 0	Michell & Son.
ditto	3¼	58 0 0	Williams, Harvey & Co.
ditto	6½	58 0 0	Union Smelting Co.
ditto	3½	61 10 0	Charlestown Company.
ditto	3½	61 10 0	Union Smelting Co.

Sold at the Mine.—(Halvans.)

Mines.	Tons	c.	qr.	lbs.	Price per ton.	Amount.	Purchasers.
Charlestown United	1	4	3	0	£46 0 0	£ 56 18 6	Enthoven.
ditto	0	7	0	19	10 0 0	3 11 8	ditto

Amount of money £60 10s. 2d.

Sold at the Mine, on the 2d July.

Georgia Consols	4	19	3	18	£52 10 0	£262 5 0	Bolitho & Sons
ditto	0	15	1	9	30 10 0	23 7 6	ditto

Total amount of money £285 12s. 6d.

Sold on the 6th August.

ditto	7	10	2	18	£54 0 0	£406 15 6	ditto
ditto	1	1	2	6	40 0 0	43 2 0	ditto

Total amount of money £449 17s. 6d.

Rix Hill	12	10	0	0	£56 7 6	£676 10 0	Williams & Co.
ditto	1	10	0	0	42 10 0	83 15 0	ditto

Total amount of money £740 5s. 0d.

Sold on the Mine, on the 14th August.

Yeoland Consols	4	3	0	26	£52 2 6	£216 18 5	Union Tin Co.
ditto	1	15	2	20	46 12 6	83 3 6	ditto
ditto	0	1	3	23	18 0 0	1 15 2	ditto

Total amount of money £300 17s. 1d.

Sold on the Mine, on the 21st August.

Chyprase Consols	1	15	2	10	£54 0 0	£ 96 1 9	Daubuz & Co.
ditto	0	4	3	24	53 0 0	13 3 1	ditto

Total amount of money £109 4s. 10d.

Sold at the Mine, on the 24th August.

Wheal Trevelyan	5	4	2	13	£56 5 0	£294 5 0	Bolitho & Sons
ditto	0	11	2	0	51 0 0	29 6 0	ditto

Total amount of money £323 11s.

COPPER ORES.

Sampled August 4, and sold at Swansea, 24th August.

Mines.	Tons.	Produce.	Price.	Mines.	Tons..	Produce.	Price.
Copiapo	80	22¼	£22 11 0	Montreal	46	15⅛	£15 10 0
ditto	79	19	18 4 0	ditto	44	15	15 5 6
ditto	78	17¾	18 2 0	ditto	37	15⅝	15 10 6
ditto	77	17½	17 2 6	Cuba	60	22½	22 4 6
ditto	76	18½	18 1 6	ditto	58	22⅝	22 6 0
ditto	68	17¾	17 9 0	ditto	33	17¾	17 7 6
Cobre	86	14⅞	14 11 0	Kaw-aw	51	44	44 0 0
ditto	79	14⅜	14 13 0	ditto	19	44¾	45 9 0
ditto	53	22⅞	22 12 6	Waterloo Slag	51	4⅜	3 13 0
ditto	48	22¾	22 7 6	ditto	9	8¼	7 15 0
ditto	44	15⅞	14 9 6	ditto	6	14¾	14 10 0
ditto	43	22¾	22 7 0	French	61	3¾	2 19 0
ditto	11	67	69 10 0	ditto	7	2½	1 15 0
ditto	8	17¾	18 5 6	Spain	43	5¼	5 10 6
Knockmahon	90	8⅞	8 17 6	ditto	10	11⅞	11 11 0
ditto	66	7⅞	7 2 0	Baltimore	50	12¾	12 16 0
ditto	62	8	7 15 6	Australian	27	19⅜	19 15 0
ditto	38	10⅜	10 17 0	ditto	6	17⅞	18 2 0
Berehaven	110	10¼	10 11 0	Burra Burra..	1	27½	29 7 0
ditto	80	10⅝	10 10 0	Baltimore	4	5½	4 15 0
Montreal	55	15⅝	15 3 0				

TOTAL PRODUCE.

Copiapo	458	£8532	10 6	Waterloo Slag	66	£ 342	18 0
Cobre	372	7190	8 6	French	68	192	4 0
Knockmahon	256	2161	14 0	Spain	53	353	1 6
Berehaven	190	2000	10 0	Baltimore	50	640	0 0
Montreal	182	2792	15 6	Australian	33	641	17 0
Cuba	151	3200	5 6	Burra Burra	1	29	7 0
Kaw-aw	70	3107	11 0	Baltimore	4	19	0 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Copper Miners' Company	153	£3761 10 3
Freeman and Co.	143	2099 14 6
Grenfell and Sons	141	2157 6 6
Sims, Willyams, and Co.	230	4909 4 0
Vivian and Sons	542½	6274 2 0
Williams, Foster, and Co.	460½	6680 12 0
Mines Royal Company	72	1347 15 0
English and Australian Company	132	3133 18 3
Low's Patent Copper Company	80	840 0 0
Total	1954	£31,204 2 6

Copper ores for Sale 7th September.—Cobre, 101, 96, 58, 48, 91, 77—Cuba, 65, 64, 63, 62, 61—Berehaven, 112, 84—Kapunda, 40, 38, 30, 24—French 69, 12—Knockmahon, 59—Creetown, 46, 8—Norway, 36—Vine Slag, 30—Galway, 19—London, 5—Ballynoe, 3—Cronebane, 2—Tigrony, 2—total, 1405 tons.

AVERAGES.

	Produce.	Price.	Standard.
British	8¾	£8 16 0	£125 0 0
Foreign	18⅝	18 10 0	111 8 6
Sale	16	£15 19 0	£113 7 6

Totals—British, 512; Foreign, 1442 = 1954 tons (21-cwts.)

AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British	8¾	£8 7 0	£121 18 0
Foreign	17¼	17 0 6	111 9 6
Sale	12⅝	£12 12 0	£115 1 0

Totals—British, 1018; Foreign, 973 = 1991 tons (21-cwts.)

COPPER ORES.

Sampled August 11, and Sold at Andrew's Hotel, Redruth, August 26.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
United Mines	125	£5 3 6	South Tolgus	46	£6 17 6
ditto	110	6 7 6	ditto	38	5 5 0
ditto	109	7 6 6	ditto	30	18 8 6
ditto	82	4 10 6	Creegbraws	92	4 2 6
ditto	77	3 12 0	ditto	64	4 16 0
ditto	74	2 9 0	ditto	43	5 12 6
ditto	58	4 16 6	ditto	19	3 5 6
ditto	57	5 17 6	South Caradon	78	8 8 6
ditto	56	6 12 6	ditto	59	10 1 6
ditto	54	3 0 6	ditto	47	10 7 0
ditto	53	5 11 6	ditto	26	5 11 0
ditto	51	3 0 6	Wheal Comfort	72	2 5 0
ditto	38	4 10 6	ditto	71	1 6 0
ditto	37	6 6 6	ditto	66	3 12 0
ditto	25	14 4 6	Treleigh Consols	64	5 9 6
Tresavean	76	2 6 6	ditto	21	11 12 6
ditto	75	2 16 6	North Wheal Damsel	32	5 9 6
ditto	73	4 4 6	ditto	20	13 5 6
ditto	71	3 10 6	North Downs	45	6 4 0
ditto	40	4 9 6	Wheal Brewer	37	5 7 0
ditto	38	3 9 6	ditto	8	2 17 0
ditto	16	4 3 6	Gonamena	44	9 19 6
North Barrier	46	1 16 6	West Wh. Damsel	19	5 17 0
Par Consols	98	8 16 0	ditto	11	4 15 0
ditto	96	6 6 6	East Tolgus	19	5 6 6
ditto	58	5 8 6	ditto	6	8 7 6
South Tolgus	74	7 9 6	West Trethellan	20	3 3 0
ditto	59	7 7 6	Richards's Ore	6	4 9 6

TOTAL PRODUCE.

United Mines	1005	£ 5330	19 0	North Wh Damsel	52	£440	14 0
Tresavean and North Barrier	435	1409	1 6	North Downs	45	279	0 0
				Wheal Brewer	45	220	15 0
Par Consols	252	1784	5 0	Gonamena	44	438	18 0
South Tolgus	247	2056	15 6	West Wh. Damsel	30	163	8 0
Creegbraws	218	990	16 0	East Tolgus	25	151	8 6
South Caradon	210	1882	6 6	West Trethellan	20	63	0 0
Wheal Comfort	209	491	18 0	Richards's Ore	6	26	17 0
Treleigh Consols	85	594	10 6				

Average Standard £136 8 0 | Average Produce 6⅛
Average Price per ton £5 11 6
Quantity of Ore 2928 tons | Quantity of Fine Copper, 178 tons 15 cwts.
Amount of Money £16,324 12 6
LAST SALE.—Average Standard £124 11 0.—Average Produce 8¼
Standard of corresponding sale last month, 129*l.* 4s.—Produce, 6⅞.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	490	£ 3277 1 0
Vivian and Sons	309	2767 17 6
Freeman and Co.	359	1244 14 9
Grenfell and Sons	290	1306 7 0
Crown Copper Company	36	46 3 0
Sims, Willyams, and Co.	283	1575 1 0
Williams, Foster, and Co.	429	2639 6 0
English and Australian Co.	173	742 15 6
Mason and Elkington	229	1161 5 9
F. Bankart	57	334 17 6
Copper Miners' Company	273	1229 3 6
Total tons	2928	£16,324 12 6

Copper ores for sale on Thursday next, at Nettell's Hotel, Pool.—Mines and Parcels.—Tincroft 734—North Roskear 545—Wheal Basset 458—Consolidated Mines 360—Wheal Seton 318—North Pool 300—South Wheal Frances 224—Fowey Consols 190—Prideaux Wood 54—Crane and Bejawsa 42—East Seton and Wheal Maud 39—Bell and Lanarth 16—Pendarves and St. Aubyn 15.—Total, 3295 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Wheal Buller 815—Carn Brea 426—Alfred Consols 327—North Wheal Basset 260—Halamanning and Croft Gothal 246—Par Consols 235—Levant 224—Wheal Tremayne 150—West Alfred Consols 124—West Fowey Consols 115—Wheal Speedwell 54—St. Aubyn and Grylls 32—Wheal Agar 30—Trannack and Bosence 28—Cook's Kitchen 24—Wheal Squire 17—North Wheal Unity 9—Godolphin 7—Grenfell's Ore 1.—Total, 3124 tons.

COMPARATIVE AVERAGES OF THE WEEKLY SALES OF COPPER ORES FOR TEN YEARS, TO THE FOURTH WEEK IN AUGUST, 1852.

Years.	Tons.	Produce.	Amount.	Standard.	Cop. Ore.	Pr. Cake	Cop.
1842	2343	7¼	£12,788 12 6	£112 8	£74 15	£—	
1843	2535	7⅝	11,632 7 0	102 17	64 18	78	
1844	3587	7⅝	17,553 16 0	104 15	67 10	83	
1845	3344	7½	17,909 13 6	113 5	74 9	88¼	
1846	2582	7	12,243 13 6	106 19	67 14	93–96	
1847	2591	7¾	13,645 4 6	108 2	71 0	98–101	
1848	2260	7¾	8,420 18 6	89 13	51 12	79½	
1849	2977	6¾	11,599 15 6	108 2	63 8	79½	
1850	2386	6⅝	9,523 12 0	104 14	62 0	79½	
1851	2401	7⅛	11,011 10 6	103 8	64 13	84	

Notices to Correspondents.

Coal Mining Operations.—A Select Committee, consisting of Messrs. Adderley, Wakley, Booker, Charteris, Ker Seymer, Bright, Farrer, John Abel Smith, Cayley, and Colonels Peinant and Mure, was appointed on the 27th May, to inquire into the causes of the frequency of explosions in coal mines, with a view to prevent the appalling loss of life arising therefrom, with power to send for persons, papers, and records,—and, after as much consideration of the subject, and the examination of as many witnesses, as the restricted time would permit, agreed to their report on the 22d June. This report, which appeared in the *Times* and other papers of Monday and Tuesday last, was published in the *Mining Journal* on the 3d, 10th, and 17th July, with frequent editorial comments, and able letters from practical correspondents, which are further continued in our present Number.

W. R. (Brixton).—The quantity of steel annually produced in Sheffield, during the last five years, has varied from 16,000 to 17,000 tons from foreign iron, and from 1500 to 2000 tons from iron of British manufacture. The greater quantity of Swedish iron consumed in Sheffield is from the Dannemora Mines.

A Reader (Millwall).—A cubic foot of water contains 62·321 lbs. avoirdupoise, and an imperial gallon 10 lbs.—therefore, a tank of the dimensions mentioned would be 10 ft. × 5 ft. × 2 ft. = 100 cubic ft. × 62·321 = 6232·1 lbs. ÷ 10 = 623 1-5th gallons, the contents of the tank. Eleven imperial gallons contain exactly 3650 cubic in., therefore 100 cubic feet = 172,800 cubic inches ÷ 3050 = 56⅝ × 11 = 623⅛ gallons, nearly the same as before. The latter method by measurement, instead of weight, is the most correct, as, with the exception of distilled water at certain temperatures, scarcely two waters from different sources will be found of like specific gravity.

The half-yearly meeting of the Copiapo Company will take place early next month.

E. W. B. (Glasgow).—It is a very common occurrence for minerals of the utmost value and utility to man to lie concealed for ages, and be brought at length to light, as it were, by mere accident, at a moment when their employment is of the utmost importance, and when civil progress has just arrived at a point to need them, and appreciate their value—witness the recent extraordinary gold discoveries, and those nearer home, of valuable iron ores in England, black-band in Scotland, and various others. The salt discovery in the county of Antrim, to which our correspondent alludes, and respecting which he expresses so much surprise that its existence was not earlier known, is no exception to the apparent wise and regular ordinations of Nature, above noticed. The geology of Ireland has been well described by many writers, among whom is Sir Robert Kane, one of the closest of observers, who says —"The new red sandstone, which in England covers so large an area, and is of so much industrial importance, from being the depositary of rock salt and gypsum, is with us but of very limited extent, and is *totally destitute* of the former valuable mineral." Yet here we have its development at a moment when, from numerous circumstances, all harmoniously blending themselves for the interests of mankind, the regeneration of that hitherto unhappy country appears tolerably certain.—Notices of the progress of the discovery will be found in our Journals of 24th April, 1st and 15th May, and 14th August.

H. C. had better apply to a broker: we could not recommend any particular mines for investment, under the circumstances stated—certainly not the gold companies enumerated.

We are unable to answer the inquiry of A Broker: we presume the information could be obtained on application at the Hall of Commerce.

A. B. (Newport).—We should be glad to receive a description of the invention, if intended for publication. Mr. Campin, the patent agent, of 156, Strand, would readily afford every information respecting a patent.

X. Y. Z. (Cheltenham).—The presence of ammonia in the superficial rust of a knife was formerly considered as a sure indication that the marks referred to were produced by spots of blood remaining on the weapon. Such supposition, however, is quite incorrect, for any rust contracted by exposure to a damp atmosphere, in most instances, contains traces of ammonia, for the water, by the aid of which the oxidation is effected, contains in solution a certain quantity of air, and therefore, of nitrogen gas, which, by uniting with the nascent hydrogen eliminated in its decomposition, leads to the formation of the volatile alkali. To prove the presence of this latter substance, let a portion of iron rust be heated in a test tube with caustic potash; the characteristic odour of ammonia will be at once perceived. The reason why iron affords sparks when struck with a flint, or other hard body, is because the friction produces an instantaneous film of black oxide, which falls in very minute fragments from the surface of the metal, and being for the moment in a state of vivid incandescence, it readily sets fire to tinder, amadou, gunpowder, or other ignitable substances, upon which it chances to fall. If a piece of paper be held beneath the metal, under these circumstances, its surface speedily becomes covered with small fragments of black oxide of iron, fused into minute globules, and readily attracted by the magnet.

M. E. (Norwich) should communicate with Mr. R. E. Ridley, of Hexham, Northumberland, who has recently patented a cutting and reaping machine, which is highly spoken of.

A Reader (Bromley).—In chemical constitutio n mica is very complex, containing potash, lime, magnesia, silica, alumina, and o ften soda; and might, by decomposition, yield to the soil a greater number of ing redients than almost any other mineral. It is, however, but slowly affected by the elements; for, on examining a mass of granite which has been much weathered, the quartz and mica will be found perfectly unaltered, while the felspar will have become quite decomposed.

Received.—Capt. John Paull, on Mines and Mining—T. H.—A Shareholder—J. H. (Launceston)—J. G. (Calstock)—A Miner (Redruth).

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

The Cost-Book System.

Having repeated applications for particulars respecting the Cost-book System, we have reprinted, as a pamphlet, the paper descriptive of its principles and practice, which appeared in the *Mining Journal*. Copies can be procured through any bookseller or newsman, or at our office, price 6d.

*** It is particularly requested that all communications may be addressed—

To the Editor,
Mining Journal Office,
26, Fleet-street, London.

Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, AUGUST 28, 1852.

The subject of Lords' Dues at this moment is exciting a vast deal of attention, and, having received many communications thereon of late, the matter has had our serious attention. We thought the letter of "A Mine Agent," August 10, the most appropriate for insertion, the party having, to our own knowledge, only just returned from inspecting several concerns in North Wales. Since the publication of it we have received many other letters, all urging us to bring the matter before our readers in the fullest form, which we shall now endeavour to do.

In North Wales, the dues exacted are generally one-eighth part, or 2s. 6d. out of every 1*l.* worth of ore raised, pay or not; therefore, if it costs the adventurer 5*l.* to get out 1*l.*, he has still to pay the lords' dues, 2s. 6d., in addition to the 4*l.* loss sustained. Thus the anomaly which necessarily deters the prudent miner from engaging in operations in those districts where such exactions are inflicted, naturally preferring to risk his capital where the terms are more liberal and considerate—as, for instance, in Cornwall and Devon. Thus it is that so little is doing in North Wales; and even in South Wales there would be infinitely more time, attention, and money bestowed for the development of mines throughout the principality, were not the exorbitant rate of dues sufficient to deter the mining capitalist. The Lisburne Mines form an exception; after an outlay of 7500*l.*, and paying 1-10th dues, they have made dividends, in 27 years, of 67,000*l.*; whereas Bryntail and Cwmystwith, at the same rate of dues, have only paid back to the shareholders—the former, 1-14th of the original outlay, and the latter only 1-16th of it. Allt-y-Crib, at 1-14th dues, has done no better. Merllyn, at 1-10th dues, has paid back one-third part of the outlay, and has not been long at work.

These are mines enumerated in our Dividend Share List, and we shall confine our remarks to it, as we have not got space to review those which are not paying their way. Scotland comes next: Black Craig and Kirkcudbrightshire, being wrought at 1-14th dues, neither of them have returned to the shareholders 1-40th part of the outlay. This rate of dues is fair in comparison to an eighth, which is 12½ per cent. on the ore raised; while 1-14th is only 7 1-7th per cent., consequently 12½d. in 1*l.* less, which in large returns would make a serious difference. The Great Devon Consols forms an exception, paying 1-12th; the only instance we have to record where dividends are made and so high a rate of dues exacted. This magnificent concern is in Devon, and so is Bedford United, which on an outlay of 11,000*l.*, at 1-15th dues, has divided 14,600*l.* In Cornwall, the mines paying dividends are from 1-15th, 1-16th, 1-18th, 1-20th, 1-24th, 1-30th, 1-33d, to 1-40th dues, except Treviskey and Barrier, which, on an outlay of 15,600*l.*, and at 1-12th dues, have paid 34,080*l.* dividends: these terms would neither have been demanded or submitted to, but for the fortunate circumstance of Tresavean lode making rich home to the eastern boundary, at the numerous levels, even down to the 288 fathom level below adit. A profit of 49,352*l.* thereupon having been made in Tresavean, the lord of the soil thought proper to demand greater dues than usual, from the advantage possessed by the adventurers in being enabled to drive the various levels from one mine to the other, which accounts for the small expenditure incurred and prosperous results. Treviskey, of course, had to contribute to the water charge and shafts to put down in barren ground from surface, as the lode did not hold good in the killas that yielded such immense quantities of copper ore in the granite; and such is the case at the present moment. The Trethellan Mine, to the west of Tresavean, expended only 600*l.*, and, paying 1-15th dues, has divided 48,300*l.*

The mines in St. Just parish, during 1849, paid 3368*l.* 14s. 3d. lords' dues; and for 1850, 3402*l.* 5s. 4d.—say, 608*l.* 8s. 2d. for copper, and 2793*l.* 17s. 2d. for tin: all which were at 1-20th, 1-24th, 1-33d, and even 1-40th, and still they have made good dividends—viz.:

Mines.	Dues.	Paid in Dividends.
Botallack	1-24th	£ 46,250
Levant	1-20th	165,760
Boscaswell Down	1-30th	48,000
Balleswidden	1-33d	16,240
Wheal Owles	1-40th	4,800
Spearne Consols	1-20th	4,608 = £285,658

This is all from the small parish of St. Just, near which, at St. Ives, the Consols Tin Mine has (in the last 36 years) divided a profit of 81,874*l.*

Mines.	Dues.	Paid in Dividends.
Ding Dong, in Gulval	—	£ 36,960
Wheal Reeth, in Uny Lelant	—	9,000
Wheal Margaret, ditto	1-24th	21,952
Alfred Consols, in Phillack	1-18th	24,064
West Providence, St. Erth	1-18th	10,752
Great Work, in Germoe	—	16,838
Wheal Lovel, in Helston	1-24th	6,450 = £126,016

Dolcoath Mine, in Camborne, has profited 159,426*l.* during the present working, and would have been abandoned several times, when poor, but for the liberality of the late Lord De Dunstanville, who, from time to time, declined receiving any dues whatever, until the mine again became profitable, and able to resume the payment of dividends. By this act he benefitted himself to a vast amount, and had the gratification of knowing that it not only kept the poor labourers employed, and enabled them to maintain their families, but it also kept the mine afloat, and amply compensated him and the shareholders into the bargain. This example was followed by his lordship in various other of his mines; in fact, it was only to represent to him the necessity, and ask his indulgence, to ensure its being granted; and, as we have had so often to compare his generous conduct with the reverse on the part of others we could point out, we, on this occasion, need only refer the lords of soil, whether in Cornwall, Devon, Wales, or elsewhere, to the splendid results already exhibited of what mining is capable of doing for adventurers and lords when they act liberally towards each other. The result is different when larger dues are exacted than are just,—extensive mineral setts lay idle, the lord seldom attempts to work (even partially) his own ground, and because his neighbours stand out for eighths and tenths he does so, and gets nothing. Where such practices exist the mining capitalist naturally shuns the locality; and, if asked by a friend, or broker, to embark, his first question is, or should be—"What dues do you pay?"

At this particular moment there are numerous new schemes afloat for raising capital in Wales, Ireland, Cumberland, and elsewhere, where not only is the rate of dues payable not stated, but the remuneration the concoctors are to derive from the undertaking. This is not as it should be: all should be fair and explicit at starting, and we caution our readers to be on their guard, and elicit full particulars before they part with their money, and then they will avoid a sea of trouble. The very first step in applying to a lord, or lord's agent, for a mining sett, is naturally to learn the required rate of dues; in fact, it is co-equal to asking what rent the landlord expects for his house or grounds; and as the applicant well knows at the first interview (in either case) what he is expected to pay, so there should be no secret hidden in the prospectus that goes invitingly forth to meet the public eye, in hopes of attracting the notice of those who may be inclined to embark their spare capital in adventurous speculations.

There are, to our certain knowledge, many localities in Wales, Ireland, and Devon, that are almost neglected by the prudent speculator, wholly from the cause we allude to—viz.: the exorbitant rate of dues demanded. Several of them are well situate as to water-power, sufficient to explore them to a considerable depth; timber and supplies near at hand, and with roads and other facilities to the shipping port; lodes laid open at surface, from whence rich specimens of ore are easily extracted; and when viewed by a practical miner from Cornwall or Devon, he is sure to express his surprise that they remain unwrought, well knowing they would be eagerly caught up, were they in his own county, where the dues are so widely different.

Our Journal teems with the profitable result of fair and legitimate mining, and knowing, as we well do, that there is a vast deal afloat of a different character, that can only end badly, we are bound to repeat the cry of "caution," and endeavour, as far as lies in our power, to pilot our readers from running on the shoals and quicksands that surround them.

We have thus far only alluded to mines in the far west; we have still Camborne, Illogan, Gwennap, and East Cornwall, to refer to, as proving the uncontradictory fact, that liberal treatment on the side of the lord is to his own advantage, as well as that of the shareholder and the labourer.

It is rumoured that the Secretary of State has requested the Inspectors of Mines to submit to him their opinions and remarks on the recent Report of the Select Committee of the House of Commons on Coal Mines; with such suggestions as they may deem expedient for the improvement of the law relating to the inspection of mines. It is very gratifying to know that this important subject is receiving that attention which is its due from the present Government; and as Mr. Walpole is unconnected by family relations to the great coal owners of the north, we may reasonably anticipate from him some better measures than the Grey administration had either the justice or courage to grant. Freely admitting that some good has resulted from the operation of the present law, we cannot close our eyes to the obvious results of its insufficiency, and to the niggard parsimony with which it has been administered. When the visits of the inspector are limited to once in two or three years, and his recommendations for the prevention of accidents may be disregarded with impunity, but little improvement can be expected; and under such circumstances it is not to be wondered at, that a feeling of disappointment should be gaining ground as to the effect of inspection. The fact is as true as it is lamentable, that no diminution of fatality has taken place in the mines since the passing of the Act: this is to be attributed partly to its imperfections, but principally to the very limited number of inspectors, and not to the system; and therefore it is that we are anxious that this subject should obtain the mature consideration of the Government, with the view of its submitting to Parliament a new, improved, and really efficient measure of inspection, the administration of which ought not to be left to the judgement or caprice of any individual, however exalted his station, or unimpeachable his private and public character.

We have always advocated the principle, that although there are numberless fields of speculation abroad, yet that there is abundant space for the developement of capital within the British isles. And however glittering may be the ideas of Australian and Californian riches, suddenly to be acquired, there is a safer and steadier road here, by developing our own resources. It has been said that gold may be bought too dear, and on reference to the list it will be found that this, in too many cases, has been found to be the fact. The golden results of other minerals depend in value on the cheapness of production in the market. We are led to the investigation of the subject by the promulgation of a new system of harbours, now first becoming known to the public, and which may in some manner be considered as one of the results of the Exhibition, which, in its consequences, will add a peculiar lustre to the reign of Queen Victoria.

The cost of production has frequently placed an insuperable barrier to the adventurer at home, who, with vast treasures at his feet, is deterred from attempting to raise them by the circumstance of their inaccessibility for want of the necessary harbour accommodation. This has not even been allowed to dwell in the mind, in consequence of the enormous expense attendant upon the construction of stone harbours. The æra has now arrived when the obstacle can be removed, and the necessary shelter for shipping can be obtained at a comparatively small cost, within the means of individual proprietors and companies of limited means.

Around the shores of Great Britain and Ireland much mineral wealth is sealed from the cause above named, and we could point out places in the sister kingdom where copper ores, in the year 1836, were shipped for Swansea, at a rate sliding from 5s. per ton to 15s., varying according to the time and risk attendant on the shipment of the cargo, the vessels being obliged to anchor at a distance from the shore, in an open and unprotected roadstead, so that in the event of a sudden gale, shelter has been sought, with part of a cargo on board, in a distant harbour, thus entailing certain demurrage, independent of the risk of damage and wreck; and this has occurred between the ports of Dungarvon and Tramore. A company has lately started on the north coast of Ireland, at Fair Head: the principle to be adopted in the first instance is that of a completely new system of harbours, which, by the several authorities, has been admitted to be the cheapest, strongest, and most speedy of erection; the mechanical portion we shall further allude to. An eminent naval authority states:—"Fairhead, as a harbour of defence, will be most effectual: a block ship, or heavy steamer, stationed there would completely secure the channel, without involving the heavy expenses incident to constant cruising, which would be necessary. Again, as a coaling depôt, it would afford incalculable advantages, especially as coals could be supplied, with remunerative profit, at a lower price than any other place in the kingdom; so that altogether everything bids fair, not only for a useful, but also a profitable undertaking."

The mercantile and shipping interests are beginning to bestir themselves on the subject of more effectually saving the valuable lives of our brave seamen, and their property comprised in ships and cargoes; and when the principle upon which the new system is founded is fully understood, the smallness of the cost of the works will, there is no doubt, induce the construction of harbours of refuge and commerce in places where the vast expense of stone-works and engineering have hitherto prevented them being even contemplated. It has been calculated that each year 1000 lives have been lost on our coast. The misery and anguish occasioned by these losses it is not easy for the mind to compass, with all its lingering horrors—brothers, fathers, sons, and the heads and supports of families, can be better imagined than described. The pauperism consequent on this deplorable loss may be estimated at about 50,000*l.* per annum. Commission upon commission has been issued, and nothing is done; our shores are yearly strewn with bodies. The British coast is the disgrace of the British nation, and the grave of the British seaman.

As philanthropists, we wish all good speed to the Fairhead Harbour Company, and we have no doubt but they will progress. We can only consider their success will be a *prestige* for the future; and the day will not be far distant when we shall see from Johnny Groat's House to the Land's End, not forgetting the sister island, that harbours at a trifling expense may be constructed, so that a free interchange of commodities, and a mutual intercourse may be carried on, and riches hitherto undeveloped, both mineral and agricultural, may be mutually interchanged; so that the spirit of friendship and communion may be cemented among all men, and that they may gratefully acknowledge the truthfulness of the sentence entablured on the emporium of British commerce—the Royal Exchange—that "The earth is the Lord's, and the fullness thereof."

We are glad to observe by our advertising columns, that the Monarch Gold Mining Company (late the London and Sydney) have organized their first staff of engineers, assayists, and miners, and that they are under orders to embark within a fortnight for Australia. This company is one of the few that had legitimate claims to public attention, from the *bonâ fide* character of the undertaking, and the known respectability of the gentlemen connected with it; but it was also one of the many which had to struggle against the indiscriminate onslaught against gold companies in general at the period of the Frémont and Mariposa controversy. The result is known. It is absurd to suppose for an instant that a *unity* of effort and skill, brought to bear upon the Australian gold-fields should be rewarded with *less* success than *individual* effort and want of skill. It is impossible for thought to cast even a shadow in this direction. We are informed that one lucky individual has just returned to England with a fortune of 30,000*l.*, and with 7000*l.* or more of this in the identical gold, gathered, gleaned, picked, washed, or by any other such honest and simple process,—no matter,—by himself in less than six months! This *reads* well enough, but the experience is more satisfactory. We have seen some of the gold, which realized 4*l.* 4s. the ounce! We are also informed, upon authority hitherto correct enough, that the yield in Australia of the precious metal (or, as Cornishmen would call it, "*stuff*") is now estimated as approaching a million sterling per month!

"*Diggers*," with their "*nuggets*," have created for themselves a golden aristocracy, and have now the presumption to smile at our great coffer in Threadneedle-street. What the result of all this will be, time only must prove. For ourselves, we honestly confess it to be beyond our ken, accustomed as we are to the calculation of the produce of metals, and their consequent influence upon the commercial world. One common sense suggestion has been handed to us,—namely "whilst the problem is in process of solution, let us contrive to become possessed of a double portion of the 'article,' and the actual bearing of the solution will not sensibly affect us." There is something sound in this; and we must leave it to our readers to judge for themselves, whether they will endeavour, by a unity of capital, skill, and energy to bring about such a desideratum.

In calculating the various results to be anticipated from the present circumstances of our Australian colonies, the impetus given to Steam Communication by the vast demand for emigration, is a subject of the highest consideration. The stupendous projects already before the public, and in embryo, have in view nothing less than the maintenance of four lines of intercommunication, as well *viâ* the Cape of Good Hope as across the American isthmus and the Isthmus of Suez, which will, in effect, employ our steamers constantly in the complete circumnavigation of the globe. On the one side, we shall have the transit by the Indian steamers *viâ* Singapore, and by the steamers touching at the Cape; and, on the other, the West India and Pacific liners, and also the more circuitous route by the North American passage. With all this prospect of abundant means for securing rapid conveyance, there is little indication of affording to the classes suited to the general purposes of emigration the advantages of cheap as well as commodious passages. In all the steamers carrying mails there is an exemption from the surveillance of the Emigration Commissioners; and, in our opinion, none of those ships have been dispatched upon the principles which ought to have been adopted for the occasion. We do not refer to first-class accommodation, nor yet to the lowest, usually termed steerage. We are far from desiring facilities for mere paupers at a sacrifice to shipowners, or to other passengers, which must ensue from low steam rates at all approaching the present fares for poor emigrants. To allow of any such reduction, the enormous expenses of steamers would involve higher charges upon the better classes, so as to bring the average to a remunerative amount; and this we deem inexpedient and unjust. Again, the paucity of the richest class of passengers would leave frequently a considerable portion of space allotted for their accommodation unoccupied, the loss of which would also be thrown upon the intermediate or paying rates.

What we desire is, a due regard to the classes which may be profitably encouraged to settle in the colony, and to establish for their service such accommodation on board steamers, at reasonable prices, as will offer them an inducement to economize their time and resources by proceeding in steamers; any other measure may be successful for a time, but ultimately this principle must prevail. Now, it is notorious that in several of the steamers already proceeding to the colony the fares have been either too high, or the accommodation insufficient, as well in respect of berth room as in dietary. In berth room particularly this deficiency is to be remarked, because, under the exemption of mail contracts, the space required by law did not appear to be allowed. Whether the Board of Trade acts wisely in sanctioning less than the legal span of 15 superficial feet of space to each person in their corresponding classes, is a question we do mean here to discuss; but we do contend that 15 feet will, in any case, be found little enough for so long a voyage as that under consideration; and we trust that it may be rather extended than contracted.

Without pointing to any particular omission, we are glad to observe, that in the case of the *Sarah Sands* steamer, which will leave Liverpool on the 14th of next month, the second class passengers are considered worthy of attention as to both points upon which we have raised objections. This, though an isolated case, is worthy of distinct remark, as we are informed that this effort of individual enterprize has been made to enable certain influential parties, desirous to promote steam communication on fair and economical principles, to judge whether the modicum of space allowed by law may not be augmented to 20 feet. We are given to understand that the estimated results will fully justify this anticipation. Our correspondent in Liverpool has inspected the arrangements in progress, and he expresses satisfaction upon all the material details. We shall give his communication in our next Number; and trust that the voyage may lead to the *desideratum* we have mentioned.

Not the least important consequence of this experimental trip is the adoption of Queenstown as the port of ultimate departure. When we shall count our time of passage to Australia by days, it is no doubt important that the last moment should be given for embarking passengers and shipping mails. And the Cove of Cork has the double advantage of admitting nearly two days' time for that purpose, but also affords Irish emigrants an opportunity for joining the ship at less expense than proceeding to an English port. It is but fair to mention that, considering the accommodation and dietary allowed, and also other rates, the charges for passage by the *Sarah Sands* are exceedingly moderate.

GOLD IN ENGLAND.

The non-completion of the reduction-works of Messrs. Johnson and Matthey, which are now in course of preparation on the banks of the Thames, for the crushing and washing of all auriferous ores, whether native or foreign, has led to further delay in bringing the question to an issue as respects the profitable production of gold in this country; and we understand that a fortnight or three weeks must still elapse before this eminent establishment can take the matter in hand: 6 tons of Britannia gossan are in London, awaiting assay in the gross by these gentlemen. The reduction-works at Neath, which are now in course of erection and arrangement, under the direction of Mr. Longmaid, are likewise yet unprepared to take any quantity in hand, and there is literally no help for the delay to which the Britannia Company is at present subject. The great bulk of the gossan now brought to surface at the Britannia, gold is not apparent to the naked eye, and many might, therefore, be led to believe that it was not auriferous; but the uninitiated in these matters should bear in mind, that where gold is apparent it is equivalent to a yield of 300 ozs. to 1 ton, and that the St. John del Rey Company, which is the oldest gold association in existence, and has paid dividends for years at the rate of 40 and 50 per cent. per annum, has, nevertheless, never reached a yield of ½ oz. of gold per ton. The reduction establishment at Neath (Mr. Longmaid's) already alluded to, will purchase, at the standard value for gold, any gossan which produces ¾ oz., and, consequently, it is clear that a very limited produce indeed of the precious metal will render auriferous gossan of commercial value.

A very valuable copper lode has been cut in the course of driving at the Britannia Mine, and although it is only at the trifling depth of about 13 fms. below surface, it yields from 2 to 3 tons per fathom of pure copper. This, taken at the low price of 7*l.* would give 14*l.* to 21*l.* per fathom, and the cost of working is settled by contract at 2*l.* 17*s.* 6*d.* per fathom. A gentleman connected with the undertaking, who writes from South Molton under date of the 23d inst., says—"I am glad to say that we have a very good copper lode indeed, considering the depth, in the level below the adit level west; it is 1½ ft. wide in the bottom, and about 1 ft. wide in the back of the level, and will turn out from 2 to 3 tons of copper ore per 6 ft. driving; this is of no little importance, seeing it must be a continuation of the ore gone through in the 10 fm. level west. We may, therefore, calculate that a large quantity of copper ore will come from this ground, and very materially assist, if it does not meet, the necessary outlay, in bringing the mine into a permanent and profitable state. We have now driven altogether in this level about 3 fms. in ore. Our friends at Barnstaple, who have supported the Britannia from the commencement, have always said that they felt assured we should discover a vast copper deposit, and that although they had equal confidence of the existence of gold to a remunerative extent, yet they regarded the copper of extraordinary value, and that there was every condition and indication to warrant the hope that it might prove as rich as the Wheal Maria. This impression seems likely to be substantiated, for the assay of the copper ore in bulk gives a yield of 8½ per cent. of copper, which is most unquestionably of no small import at so shallow a depth, and when it is remembered that the average yield of copper ore in the United Kingdom does not much exceed 7 per cent. Lord Poltimore is here, and takes most lively interest in all that goes on; but it is only natural that he should do so, for on the Britannia sett alone there are six known copper lodes, and the adjoining mining sett, now about to be introduced as the 'Poltimore," is even still more rich in copper veins. The great income now derived by the Duke of Bedford from mineral royalties began in a similar quiet way."

COATING METALS, AND METALLIC COMPOUNDS.

Messrs. Morewood and Rogers have just specified their new patent for improvements in the manufacture, shaping, and coating of metals, and in the means of applying heat. The first of these improvements consists of a method of coating zinc with lead. The slab or sheet of zinc to be coated is placed on a plate of cast-iron, which is heated so as to raise the temperature of the zinc above the melting point of lead. When this is the case (which may be ascertained by applying to the zinc a thin stick of lead), the surface of the zinc is covered with a sprinkling of sal ammoniac, and stick lead is rubbed on until a more or less thick coating is obtained. Molten lead is then poured on in quantity sufficient to produce the desired thickness of coating. The edges of the zinc should be surrounded with sand, to prevent the lead flowing away. As soon as the lead has set, the compound slab may be extended by rolling, or it may be allowed to become quite cold.

Another improvement consists in a mode of coating zinc, or hard alloys of that metal, with lead, tin, or alloys thereof. The zinc, having been first coated with lead as above described, is laid in a mould of the required depth, and secured therein by any suitable means, leaving a space between the zinc and the bottom of the mould when the metal is required to be coated on both sides, and filling up that space with sand when the coating is to be applied to one side only. The mould, and zinc in it, are then immersed in the melted lead, the surface of which should be covered with a flux (by preference, sal ammoniac), the mould being entered into the bath in a vertical direction, then brought to a horizontal position, and so withdrawn, after which the compound slab is set aside to cool, or it may be rolled as soon as the lead has set sufficiently to enable it to undergo this operation. When rolling coated zinc, the patentees prefer to subject it to a previous hammering or forging, in order to break down the grain of the metal.

Another improvement has relation to the extension into sheets of zinc coated with lead, &c., by immersion. The zinc to be coated having been previously cleansed with dilute muriatic acid, is dipped into the molten lead, the surface of which is covered with a flux, as before, and this dipping is repeated until the required thickness of coating is obtained. As soon as the lead has set, or is cold, the compound slab is rolled between rollers, the surface of which has been slightly hollowed. The surface of the metal to be rolled is to be smeared with grease, in order to prevent sticking. The zinc to be coated by immersion in this way should not be too thin, or it would be liable to be broken; and the temperature of the lead should be only just sufficient to keep it in a state of fluidity.

Another part of the invention consists in the use of sand, mixed with sal ammoniac or other suitable chloride, as a flux when coating metals such as iron with zinc, by which means a considerable saving is effected in the quantity of flux consumed, and in the consumption of fuel for maintaining the requisite degree of heat. Powdered charcoal, coke, or loam may be also used instead of sand.

Another improvement consists in the use of a lighter metal floating on the surface of a heavier one for coating purposes. Thus, when lead and zinc are used together, a division bar or plate would be placed across the top of the lead bath, and on one side of this bar the zinc would be melted on the surface of the lead. The metal to be coated would be introducted into the coating-bath on that side of the division bar where the zinc is floating, and passed under the bar and withdrawn on the other side. The surface of the floating bath would be covered with a flux, as before mentioned; and in selecting metals to be used in this manner, those should be chosen which do not readily combine with each other.

Another improvement has relation to the coating of wire, wire chains, &c., and consists in withdrawing the same from the coating metal through a tube or narrow passage, and in preventing access of air, and the oxidation consequent thereon, by causing the interior of the tube, or passage, to be filled with a gas or vapour, such as carbonic acid gas or steam. The wires, or wire chains, are wound on a reel as withdrawn, in the usual manner.

Another improvement consists in manufacturing tubes from black iron, and coating the same with zinc or other metal. The tubes are formed from uncoated sheet-iron, the edges being seamed, and they are then plunged in a bath of molten zinc, by which they will be coated, and, at the same time, have the junction of their edges effected.

Another improvement consists in forming grooves, or indentations, in the ends of eave and other gutters, by which they will be much strengthened, at the same time that the facility of uniting lengths of them together will be increased, the grooves, or indentations, on the ends of one length being made to fit into those on the ends of the next adjoining lengths.

Another improvement consists in producing a flute, or flutes, across the ends of plates of corrugated iron, in order to facilitate the formation of joints when several such plates are employed for covering roofs and other similar purposes.

The last improvement consists in fixing or employing a fan or blower in the flue of a furnace employed for melting metals for coating purposes, at a point after or behind the fire, in order to draw away the smoke and products of combustion.

Inflammable Coke.—Mr. William Pidding, of Chiselhurst, Kent, the inventor and patentee of this novel fuel, is the same gentleman who invented the coke building materials, noticed in our Journal of the 24th of July, and the two following Numbers. The inflammable coke is formed in moulds, of shapes calculated to allow of the free passage of air, when ignited in the grate, thereby occasioning perfect combustion and the absence of all smoke, and, in lieu thereof, a bright flame. Each piece of coke, be it round, oval, hexagonal, octagonal, or other shape, has a cell in its centre, filled with waste coal, or other inflammable substance, or compound, secured by means of coke male and female screws, and is rendered slightly porous. As many substances—such as small pieces of wood, coal, dust, &c.—are very cheap, because useless for fuel in their existing form, and as they can be rendered by this invention more available for fuel than the most expensive coal, at a very much less cost, it is reasonable to suppose that the patent inflammable coke will supersede the use of other fuel.

New Composition for Railways and Other Constructive Purposes.—Mr. Owen Williams, of Stratford, has patented a composition to be used in railways and other structures, in lieu of iron, wood, or stone, and for building purposes generally. One of these compositions consists of 180 lbs. pitch, 4½ gallons creosote, 18 lbs. resin, 15 lbs. sulphur, 45 lbs. finely powdered lime, 108 lbs. gypsum, and 27 cubic feet sand, breeze, scoria, bricks, stone, or other hard materials, broken up and passed through a sieve with half-inch meshes. The sulphur is first melted with 30 lbs. of the pitch, after which the resin, and then the remainder of the pitch is added with the lime and gypsum, by degrees, and well stirred till the mixture boils. The earthy and stony matters are then added, and the creosote mixed in, when the composition is ready for moulding into blocks, for which pressure is applied. The claim is the mode of preparing such composition, particularly the use of sulphur therein.

Shipbuilding—Iron and Wood.—A plan has been recently submitted to Government and private shipbuilders by Mr. L. Arman, of Bordeaux, and Mr. J. J. Brunet, of the Canal Iron-Works, Limehouse, with the view of obviating the objections which at present exist against iron vessels. Mr. Arman proposes to remove these objections by building vessels of the most approved modern lines for speed, the outer frames and planking to be of timber, much thinner and lighter than vessels built entirely of timber; and, within the outer frame, building one entirely of iron, also proportionately lighter than if the entire ship was built of iron. The French Government have ordered the building of a corvette at Rochfort, to be named *La Mégère*, with auxiliary engines of 220-horse power, the specimens Mr. Arman built for the mercantile service of France having given great satisfaction. The plan appears well adapted for the mercantile service of the country, but it is not probable the Admiralty will order any vessel to be built where iron plating is used, as the splinters from it would be most destructive to the crews when struck by 32-pounder shot, unless Mr. Arman can show, by experiment, that his iron is protected.

ON MINING LAWS AND PUBLIC COMPANIES.—No. I.

BY SEYMOUR SMITH, M.E.

I beg leave to bear testimony to the general satisfaction which your recent strictures on the state of our mining affairs, in connection with that of the mining laws of this country, have afforded to your readers; and also to state that it appears to be the prevailing conviction of the public, that the present great and still increasing extension of our mining investments, not only in England and Ireland, but British Australia, California, South America, Mexico, and indeed to almost every region of the globe, calls for some code of laws more real and substantial than the undefined construction of "the Cost-book System," or of those other "laws and customs of mining," upon which the immense investment of British capital at present depends. If we regard the importance and magnitude of the subject, we cannot fail to become sensible of the insufficiency of the foundation upon which the major part of our mining enterprises are constructed.

Impressed with these ideas, and with the importance of the subject to which you have directed the attention of the community, I consider it an incumbent duty on the part of those in any way conversant with its bearings to contribute their mite of aid towards the amelioration of the present state of these affairs, and that of the amendment of those laws which should regulate and protect a national interest such as mining, or that which ought to become one. When we consider the increasing interest manifested, and the large amount of capital invested in mining enterprise, we cannot but admit that the subject is entitled to every consideration and security which the Legislature of the country can devise for the protection of this branch of the national industry, or the safe employment of the wealth of the community.

It may, therefore, very justly be expected that at an early period of the next session of Parliament some new laws will be introduced for the better regulation of mining enterprises, as well throughout the United Kingdom as in British and foreign dependencies, wherever founded. Let it, however, be well borne in mind, that in thus pointing out the necessity of some general and well-defined law on mining, that it is not my opinion, or the desire of the public, that any such law should be harassing or restrictive, or encumbered with the overwhelming burthen of legal and legislative machinery, but that, on the contrary, it should be of a nature to encourage native labour and national industry, especially in Ireland, and at the same time protective of the security of those who invest their property in such adventures simply on the good faith reposed in promoters and directors, whose integrity and responsibility should be made the guarantee for *bona fides* and reality of their projects in the formation of public companies. Subject to such wholesome regulations, we should no longer behold the wasteful sacrifices of public money in fifties and hundreds of thousands of pounds for the purchase of properties, without any security either as to title or value.

It has often been said that it is easier to find out than to remedy defective systems. Now, in the matter before us, I do not conceive it to be a task of such formidable difficulty to remove the evil which exists, without destroying the spirit of enterprise which maintains our position and promotes the influence of this country throughout the nations of the earth. It is by this same spirit of enterprise that native industry is everywhere employed, and the commercial pursuits of this country extended to markets and regions hitherto unknown, despite of the respective systems of other nations, either continental or American; and it is also to the same cause that we may justly ascribe the present vaunted prosperity of the country, rather than to a new theory of free trade, which, as regards Europe and America, is more a chimera of the brain than an existing reality. It behoves us, therefore, to guard against the evil which might arise by the imposition of any restrictive measures, which might paralyse the spirit of well-regulated enterprise, and force back the current of national prosperity.

In order not to encroach too much on the valuable space of your Journal, I will proceed to the consideration of those remedial measures which the extending field of mining operations appears to require. In the first place, I would recommend the introduction of a general "code of mining laws," based upon equity, and grounded upon the ancient usance and customs of mining, known as the law of the Stannaries in Cornwall and Devon, and upon which the "Cost-book Principle" is founded, which exempts mines and quarries in the United Kingdom from registration under the Joint-Stock Act of 7th and 8th Vic., c. 110, in accordance with the preamble and the 63d section of the Act in question. In carrying out a legislative measure of this nature, it is only requisite to extend the sphere of the stannary law to all counties and colonies in which mining operations of magnitude, and under the management of public companies, shall have existence, and more particularly to divest undertakings in mining from all liability, or subjection, to the laws of partnership and bankruptcy, as regards the individuality of shareholders. It is self-evident that in adventures of this description, no shareholder should be liable for more than his portion of such working costs and expenses as he may have subscribed to; and it is neither equitable or expedient that he should be responsible for the obligations of the whole body, or liable to any claims or debts which may have been created without his concurrence or knowledge. It is far more consonant with justice and reason, that those who imprudently incur the load of debt should be held the responsible party, and that absent and innocent shareholders should only be accountable to their own body, and to the committee of management, for the contribution of their several proportions, according to the number of shares so held by him or them. Were this the law, it is idle to suppose that the credit of the various concerns would be impaired; on the contrary, I feel assured that it would inspire greater confidence in those creditors who supply the requisite stores to mines, possessing, as they would then do, the conviction that the undertakings were in a healthy state, and that the managing committee and agents would not imprudently give orders, or incur debts, without the prospect and certainty of meeting their engagements. Neither in my view of mining is it proper that any purser, or agent, should have the power to create an unknown load of debt without previous authority, and then to indicate to some favoured creditor the possibly wealthy and absent shareholders, against whom he is instructed to proceed for the totality of his claim, instead of that proportion thereof for which the individual might be solely liable. Proceedings similar to the one now imagined have occurred, even under the sanction of the Stannaries' Courts, and are a bane to legitimate mining; but I trust the time will arrive when judicial proceedings will be restricted to measures which in themselves are equitable; and that, whenever they become necessary, they will be directed against the property itself as a whole, and against the body of management as the official representatives of the whole company.

To judge from the experience I have obtained in mining affairs, I am inclined to the opinion that in this country we are far behind the requirements of the age, and the institutions of our continental neighbours, as regards mining laws and public companies. In Germany, France, Spain, and Italy, we find the existence of distinct codes of mining laws, adapted to the wants of the different countries, and to the public safety of the several communities. In this country everything is left to individual enterprise, and laws, introduced upon urgent necessity, are enacted and evaded, as individual ingenuity or cupidity may devise.

In the formation of public companies, we daily perceive allusion taken to the foreign laws of *sociétés anonymes* and *sociétés en commandite*, which fully proves the preference given to them in affairs of mining and of public companies to those of our own country under the Joint-Stock Registration Act. According to the former, legal proceedings are instituted, if necessary, against the property, or the company, as an ostensible visible body; and under those companies *en commandite* the *gerants*, or managing agents, are the official organs, against whom legal proceedings are to be instituted, without the liability of shareholders; and experience teaches that this construction of law for public undertakings is more in accordance with the policy of the governments and the desires of the people than any Joint-Stock Act, founded upon restrictive principles, and subject to our intricate and troublesome public office regulations.

To render any remedial measures both effective and useful, it is only requisite to give to County Courts the same power and privileges as are now possessed by those in the Stannaries of Cornwall, and to introduce simple and equitable laws for mining, which those who run may read, and those who read may understand. But, above all things, let it be understood that any new laws or measures to be introduced must be both useful and liberal—not restrictive beyond the view to public protection; and that the encouragement to the labour and the industry of the working classes of the community, especially as regards Ireland, in the employment of capital, be the chief object of every research.

A powerful and magnificent high-pressure engine for metal grinding has just been started at the Spitty Copper Works, Loughor. It was executed at the foundry of Messrs. Nevill and Co., Llanelly, under the superintendence of Alfred Trueman, Esq.—*Swansea Herald.*

SOUTH AUSTRALIA—ITS STATE AND PROSPECTS.

[FROM OUR OWN CORRESPONDENT.]

Amount of gold in assay office, on 20th inst.	£55,398
" deposited on 23d of March, 4014 ozs., at 3*l.* 11*s.*	14,251
" " on 26th March, 2000 ozs., at 3*l.* 11*s.*	7,090=£76,739

You will perceive by this, the result of only five weeks' receipts, how important the Bullion Act will be to this colony; a very small portion of this would only have found its way here from Melbourne, but for the Bullion Bill, and the circulation of these large sums of money otherwise have been lost to this colony. However lukewarm the Government may have been in the commencement, with regard to this measure, Sir Henry Young now shows the most laudable anxiety to place the Assay Office on the most efficient footing possible; a new wing is being erected with all possible expedition, which is to contain ten more furnaces; all the available chemical and smelting talent has been sought out, and the work goes on now night and day, in relays of eight hours each party. As soon as the new furnace room is ready, the utmost regularity will be introduced in the whole operations; Dr. Davy and another efficient analytical chemist will have one room to themselves, for the purpose of assaying exclusively, and checking each others work, the whole of the smelting being conducted in the adjoining room, Mr. Babbage superintending the whole. The office will then be able to turn out 2000 ozs. of ingot gold, ready for delivery to the banks, every day? Indeed, the Governor gives *carte blanche* to procure any further assistance that may be required. There is a scarcity of proper crucibles, and any of your readers who manufacture them would obtain a good price for them by sending out a lot for sale, without loss of time; for although the Bullion Bill is limited to 12 months, there is no doubt it will be permanently renewed from session to session.

The Bank of Australasia has refused to have anything to do with the taking of the ingots, and have imported 8000 additional sovereigns, to prepare for a run on them, for the greatest indignation exists here against that bank for refusing its aid to the other two banks to carry out, conjointly with them, the provisions of the Act, as it was originally settled and agreed upon between all three. This odious repudiation of its engagements, worthy of Yankeyland, will not easily be forgotton here. Their magnificent building looks miserably deserted already; the customers who come to the counter are "like angels' visits, few and far between." Last Monday, being the day for the exchanges, the Union Bank tendered ingots for the notes of their bank collected during the week by the Bank of Australasia, which, the clerk refusing to take, the solicitor of the Union Bank proceeded to the Bank of Australasia to make a formal legal tender of the ingots, which was also refused. So here we have the first act of a very pretty quarrel between the banks, and likely to give ample employment to the gentlemen of the long robes before long.

Mr. Tolmer starts again for Mount Alexander, with a strong escort, on Monday next, and expects to be back in about a month.—*Adelaide, March* 27.

Adelaide, *May* 8.—Gold, being the all-absorbing topic here, as it probably also, by this time, is with you, must be my excuse for sending you so many communications just now. This country is going through an ordeal either for permanent good or evil, in consequence of the gold discovery in the adjoining territory, which must make all those interested in South Australia naturally anxious to be kept well informed of our progress. You and your subscribers will, therefore, I hope, not think my communications unnecessarily encroaching on your columns.

Last Monday was a grand and exciting day in Adelaide: early that morning intimation was received that the South Australian escort, under the command of Mr. Commissioner Tolmer, on its second return trip from Mount Alexander, was close at hand. The beauty of the weather, and the immense numbers of people who have relations or friends at the diggings from whom they were expecting to receive letters and gold, caused great numbers of vehicles and horsemen to proceed out to meet the escort; consequently, by noon there was assembled a large concourse of people at Glen Osmond, three miles from Adelaide, on the great eastern road, where it enters the defile leading across the Mount Lofty Range; a band of music, perched on the top of an omnibus, drawn by six greys, was in readiness to head the procession, and in the city of Adelaide all business was suspended: the whole population was congregated round the Treasury, where the gold was to be deposited, and in the streets leading to it. At 2 o'clock the escort issued out of the defile, and stopped for a few moments at the Glen, where Mr. Tolmer, and Mr. Chambers (the South Australian mail contractor), who drove the gold cart himself, drawn by five horses, were received by their numerous friends with loud cheers and most hearty welcome. In another hour the Treasury door was reached, in Adelaide, at which time there must have been several thousand people present.

The escort brought this time 75,000*l.* sterling worth of gold. The journey was performed, without the least accident, in eleven days and a half, and we may now almost consider the diggings at Mount Alexander in the same light as if they were in our territory, for we shall now have an escort every fortnight, as soon as the arrangements can be completed, and, of course, all the gold raised by our population at the diggings will find its way to Adelaide, without the attendant disadvantage of having our colony inundated with all the Van Demonian ruffians who are swarming in Victoria, and who have lately given a proof of their dexterous rascality by boarding the *Nelson*, in Port Philip harbour, and robbing her of 8000 ozs. of gold. After the cart was unloaded, the procession re-formed, and, accompanied by an immense multitude, proceeded through the principal streets; when they arrived opposite the Bank of Australasia, the multitude stopped, the band struck up the "Rogue's March," and gave three tremendous groans, expressive, no doubt, of the feeling entertained by the people of the odious conduct of the bank during the last two months, and the disreputable repudiation practised by it. The Bank of South Australia, and the Union Bank, were next visited, where cheers, instead of groans, were given, and the people then took Mr. Chambers (the South Australian Biancone) home, and separated.

The notes of the Bank of Australasia have now quite disappeared from circulation; all their business is now done in notes of the other banks; it is also known, by published returns, that a large portion of the gold coin imported by the Bank of Australasia from Melbourne, at great cost, has been drained into the other two banks, where, of course, it remains, so that the former establishment has already had to pay very dearly for the system it has pursued, besides the odium and hostility of the whole community. Bah! I am sick of writing about this repudiating establishment.

The *Albatross*, a large ship which sailed last week, took from here 1100 tons Burra ore, belonging to the Patent Copper Company, besides 14,000 ozs. of gold; she is bound to Liverpool. The following are the particulars of the deposits at the Assay Office up to date, since my last:—

Amount deposited to 30th April	£258,677
Deposited on 1st May, 9141 ozs.	32,453
" " 4th May, 5751 "	20,419
" " 7th May, 2375 "	8,431=£319,981

This does not include the 75,000*l.* worth of gold brought by the escort.

MINING IN CALIFORNIA.

San Francisco, *June* 24.—Since my arrival here I have met with several mining agents of the various companies, who have been surveying this locality for the last six or eight months, and whose opinion of the quartz veins, so far as I can learn, is that, from the opportunities afforded them of inspecting the same, they do not believe any one which they have yet seen would pay a mining company, until labour and cost of transport of goods and materials should come down to at least one-fourth. In this opinion I perfectly agree, and think I may state with confidence that up to the present moment no quartz mining company has succeeded. Several parties who have surveyed that part of the Mariposa district called the Frémont property, state that it would not be profitable to work it. I merely advance this as the opinion of others, but have little doubt as to its correctness. There are a great number of miners and others at the present time leaving here for Sydney and Port Philip. I may mention that those companies who had machinery erected for crushing the quartz have been wofully disappointed in the sanguine expectations they entertained, and, indeed, find it not worth while to remove the machinery so erected, and which is, consequently, left to its own fate. How it is ultimately to be applied remains to be seen, but certainly not for the purposes for which it was originally intended. The Ave Maria Mining Company have taken a claim, and proceeded up to the Mariposa with several miners; but they have no mining agent, neither has the location been inspected or examined, consequently it cannot be said, otherwise than by surmise, whether there is any deposit of gold or not. It is no uncommon thing here, of which you are doubtless well aware in England, that good specimens are purchased and sent home as fair averages; but too much reliance must not be reposed on the reports from these distant regions, and it is only by having agents in whom the most implicit confidence can be placed that anything is to be done, although there may be exceptions. I admit fully that, as regards surface operations in certain localities, and with local advantages, capital may be embarked with beneficial results; but too much caution cannot be displayed, and a heavy deduction from the reports and representations which are too often made with one object alone. Such serious mistakes and loss of money which have taken place in projected undertakings (I refer to quartz mining) I never before witnessed; but I entertain no doubt but that, with prudence and economy, money is to be made from surface working, from which, indeed, the great bulk of the gold has been obtained. I certainly do entertain an opinion that, if the alluvial deposits be well turned over, without attempting mining operations by sinking or driving in the "fast," a fortune may be readily realised.—A Cornish Miner.

Silver Mines of Northern Mexico.—By recent advices, it appears that the enterprise of the Americans is being turned towards the renewal of workings at the rich silver mines in northern Mexico. The great mine of Jesus Maria, near Valleville, is now owned by an American company: with a very fine steam-engine they have pumped out the water, cleared out the main shaft, cleaned and restored in many places the ruinous works of the mine, and have already extracted a large quantity of ore, which will yield rich results. The company are now completing a new shaft, commenced by the Spaniards, about 200 yards along the vein away from the present shaft. This is a work of great importance, and when finished, which will require some months, it will give excellent facilities for the ventilation of the entire mine, and afford space for many years' uninterrupted labour in getting out the metal. Shafts are also being sunk in other localities on this property, and 10 mills for grinding the ore are in course of erection. It is expected that in a short time there will be a thriving town in this locality, which hitherto has been deserted, from the apprehension of the inroads of the Camanches. A field of enterprise is here opened to capital, that will probably be extensively worked. Parties writing from the spot state—"We are convinced that when all the necessary works now under way are finished, the natural advantages of this mineral will be developed, and in a short time the public attention will be attracted by the large amounts of silver produced."

Improved Nail and Bolt Machinery.—Messrs. J. Hinks, and E. Nicolle, of Birmingham, have patented a machine for feeding metal rods to engines for making nails, bolts, rivets, and screw blanks, for tapering the rods by causing them to pass between rolling surfaces, the axes of which at the same time gradually approach each other; and for an improved machine for cutting off these partially formed nails, &c., by causing the dividing tools to approach each other by the action of a screw, the thread of which is partially right and partly left-handed.

New Invention.—In the early part of this year, the barque *Esa*, of Sunderland, Capt. Bridges, in her passage to Ceylon, and about 1000 miles from that port, found the water in the tank salt, owing to a leak from the pump. The carpenter was ordered to fit wooden lids to the cooking coppers (holding four gallons each), with a plug in one as feeder, and also safety-valve—in the other lid, a common brass tap, from which he placed a musket barrel. Having cut off the breech, and placed the musket barrel within a pork cask filled with water, it acted as a condenser, and by that simple means they were able to distil 10 gallons a day, and distilled the whole 1000 gallons—and thus were enabled to terminate their voyage in good health.

ON THE DETECTION OF THE FRAUDULENT IMITATION OF GOLD AND GOLD-DUST.

[*Extract from a Letter in the "Times," July*, 1852.]

"While reading your paper to-day, a gentleman with whom I was conversing informed me that a quantity of mixed metal was about to be sent to Australia from this town, made to imitate the gold found there."—*Birmingham, June* 30.

In order to detect such sophistication, let the gold be first weighed and then exposed in an iron ladle over a brisk fire for half an hour or so; the fire may be urged by the bellows. If it is gold in a tolerably pure state it will remain almost unchanged; not so, however, if it is iron or copper pyrites (sulphuret of iron or sulphuret of copper): in that case a smell of sulphur, and probably a small blue flame, will be discerned. If it remain unchanged, let it be broken up so as to expose a fresh surface, and then pour on it boiling nitric acid (aquafortis), which should be in a pure state. It is still better to boil the gold in the acid where practicable *. If a strong action commences it is certain that the gold is not pure. If it all dissolves, rest assured that there is no gold at all in the sample, as pure nitric acid has no action on gold. The gold, having been weighed before treatment, if it remain unacted on, may be reweighed: the loss will afford some index to the purity of the gold †. It is necessary that the nitric acid should be pure and free from muriatic acid (as gold is soluble in nitromuriatic acid); to prove this, add a drop or two of nitrate of silver to a small quantity of nitric acid; if there is any cloudiness it contains muriatic acid (spirit of salt). To purify the acid, where this impurity is only slight, add nitrate of silver so long as any cloudiness is occasioned by the addition. The precipitated muriate of silver may be preserved and afterwards reduced to metallic silver.

The purity of gold also may be very readily ascertained by taking its specific gravity or relative weight; gold being the heaviest of metals, with the exception of platinum, and nineteen times heavier than water. To do this, a pair of scales with upright standard or pillar, a set of weights, and a wide-mouthed stoppered flask or bottle will be required ‡. There should also be a weight exactly counterpoising the bottle placed in one pan of the scales. The bottle should then be filled with water and the stopper put in, which will displace the surplus water; the stopper is usually grooved, to allow the water to pass out. We will suppose that the bottle holds 1000 grains of water; then if we introduce 1000 grains of gold into the bottle, we shall displace, not 1000 grains of water, but a similar *bulk* of water to the *bulk* of gold. Now, as *pure gold* is more than nineteen times heavier than water, if we reweigh the contents of the bottle we shall find that it weighs now, not 1000 grains, but 2000 grains *less* the *weight* of the water displaced; you thus have the weights of an equal bulk of water and gold. Let the weight of water displaced be 52 grains, then divide the weight of gold, 1000 grains, by 52,—

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52)1000(19·2
   50
  ---
  480
  468
  ---
  120
  104
  ---
   16
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then you have 19$\frac{2}{10}$ as the specific gravity of the gold, or decimally expressed, 19·2 grains. In every case the weight of gold is to be *divided* by the weight of displaced water. Distilled water should be used where procurable.

Below are the specific gravities of several metals, &c.:—

Sulphur from	1·97 to 2·08	Copper	8·78 to 8·95
Silica (quartz)	2·66	Bismuth	9·82 to 9·79
Mica	2·70	Silver	10·40 to 10·60
Copper, or iron pyrites	4·30 to 4·80	Lead	11·35 to 11·44
Zinc	6·80 to 7·20	Mercury	13·56
Tin	7·28 to 7·60	Gold	19·20 to 19·40
Iron	7·77 to 7·80	Platinum	21·45 to 21·74
Manganese	7·05 to 8·01	Water	1·00
Nickel	8·27 to 9·00		

The specific gravity of Californian gold-dust is from 16·0 to 17·0.

This method of taking specific gravities is complete, as far at least as preventing deception, though a very inferior parcel of gold offered at a low and remunerating profit might be rejected.

The following table shows the specific gravity, &c., of various alloys of gold:—

	Grains.	Specific gravity of alloy.	Bulk before union.	Bulk after union.	Expansion.
Gold	442	18·08	1000	1005	5
Lead	38				
Gold	442	17·65	1000	1006	6
Copper	19				
Lead	19				
Gold	442	17·312	1000	1022	22
Copper	30				
Lead	8				
Gold	442	17·032	1000	1035	35
Copper	34				
Lead	4				
Gold	442	16·627	1000	1057	57
Copper	37·2				
Lead	0·5				
Gold	442	17·039	1000	1031	31
Copper	37·75				
Lead	0·25				

Standard gold consists of 11 of gold and 1 of copper; its specific gravity is 17·57.

"The gold assay pound is subdivided into 24 carats, and each carat into 4 carat-grains, quarters and eighths."

"In estimating or expressing the fineness of gold, the whole mass spoken of is supposed to weigh 24 carats of 12 grains each, either real or merely proportional, like the assayer's weights, and the pure gold is called fine. Thus, if gold be said to be 23 carats fine, it is to be understood that in a mass weighing 24 carats, the quantity of pure gold amounts to 23 carats."

Below is an example of the calculation:—

Standard gold consists of pure 22 parts, alloy 2 parts } 24 parts or carats.

Rule. As 22 is to the assay, so is the gross weight of the bar to the purity or alloy of it.

Ex. A gold bar weighing 12 lbs. 5 oz. 10 dwts. 12 grs. Worse 2 cts. 1 gr.

22 cts. : 2 cts. 1 gr. : : 12 lbs. 5 oz. 10 dwts. 12 grs.

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 4     4          12
---   ---        ---
88     9         149
                  20
                 ----
                2990
                  24
                 ----
               11960
                5980
                  12
                 ----
               71772
                   9
                 ----
88)645948(7340 88/88
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	lbs.	oz.	dwts.	gr.
Gross weight	12	5	10	12
Deduct 7340 $\frac{88}{88}$ grs., or	1	3	5	20 $\frac{88}{88}$
The standard weight is	11	2	4	15 $\frac{88}{88}$

Yellow mica has been mistaken for gold, but its small specific gravity, as shown in the list, ought sufficiently to indicate its real nature.

In drawing up the foregoing, I have had the kind assistance of two analytical chemists, and I shall be glad to find that it has been of service to parties purchasing gold in the colonies. However, wherever practicable, it would be advisable to put the gold into the hands of a respectable practical assayer or analyst, as then the exact value could be accurately determined. It is impossible in a short note like the present to go into the niceties of quantitative analysis. WILLIAM RICHARDSON, F.C.S.

St. Helen's-place, Aug. 24.

P.S.—I have been informed that the fraud referred to has already been practised at Sydney.

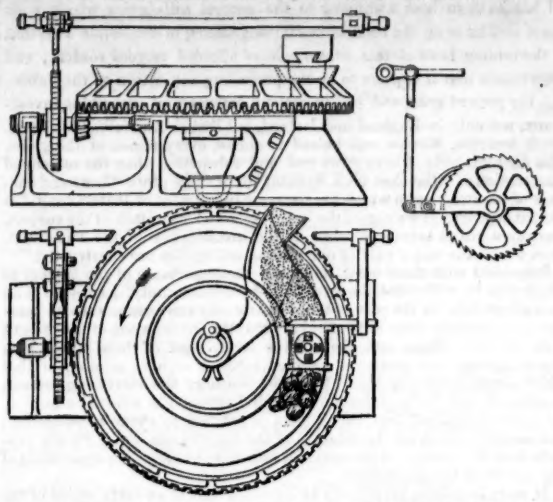
* It is probable that the counterfeit gold will be strongly gilt; hence the necessity for bruising.

† Gold, in some cases, when alloyed with less than 10 per cent. of other metals, is not acted on by nitric acid.

‡ If a bottle of the foregoing description cannot be procured, a light bottle with a long neck might be employed. It should first be counterpoised with shot, and then filled with a determinate quantity of distilled water, say 500 or 1000 grains; the level of the water should then be marked on the neck with a file.

BAGGS'S IMPROVEMENTS IN CRUSHING GOLD QUARTZ AND METALLIC ORES.

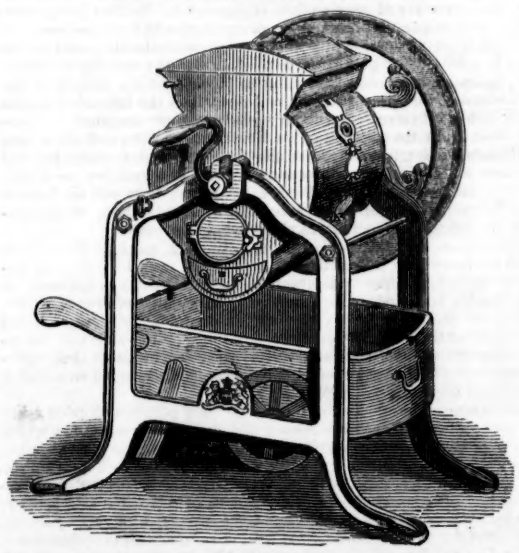
SELF-ACTING FEEDING APPARATUS, AND ATMOSPHERIC STAMPS.



In our former notice of this patent, the observations were confined entirely to that portion of the apparatus which is directly employed in reducing the quartz, or ore, to powder. We will now explain the arrangements for supplying the engine with the materials to be crushed, and for removing the same after pulverisation. In the annexed diagram, the two figures to the left represent a plan and elevation of a circular trough, or table, for receiving the gold quartz, or ore, to be crushed. This table is supported by a strong shaft, which turns in a massive iron framing, firmly bolted to the block or anvil. The face of this latter lies immediately beneath the circular iron table, and in contact with it. A large bevil wheel is cast in a piece with the table; and into this wheel is geared a bevil pinion, turning on a horizontal shaft. The same shaft that carries the pinion, carries also a fixed ratchet wheel, which is moved at regular and proper intervals by a pall, as shown in the above diagram—the action being as follows: Every time the stamp rises, a projection from the side strikes the end of a horizontal lever, connected with a crank upon a rocking shaft, carrying the pall; so that after every blow that is struck, the table is advanced through the distance of a tooth of the ratchet wheel, and thus the materials which it carries as they are crushed are gradually borne along, and thrust against an inclined scoop, by the action of which they are carried over the outer ledge of the table, and fall upon the ground. Thus at every rising of the stamp a fresh supply of gold quartz, or metallic ore, is brought beneath it, and that which has been pulverised is carried away. Instead of using stamps worked directly by steam, the patentee sometimes employs engines actuated by atmospheric pressure. This is done in the following manner:—The stamp is attached by means of a rod to a piston, the cylinder of which is open at top, but closed at bottom, with a cover, in which is a stuffing-box, to allow the piston-rod to pass through. The stamp slides up and down between guides in the general framework of the machine, and carries a cross-head, which is raised by means of cams, or other suitable mechanical contrivance, worked by a water-wheel, or other prime mover. As the cams revolve, the cross-head is caused to rise, and with it the stamp and piston, which causes a partial vacuum to be formed beneath it; so that when the cross-head is released from the cams, the pressure of the atmosphere above the piston, together with its own gravity and the weight of the stamp, causes it to descend with a blow upon such gold quartz, or metallic ore, as may be upon the block. A small valve, opening upwards, is placed upon the top of the piston, so that any leakage from above into the cylinder by the sides of the piston may be allowed to escape upon the descent of the piston, as, in the event of any accumulation of air beneath, an air-cushion would be formed, and the piston and stamp would be prevented from reaching the end of the stroke.

Or, instead of the above arrangement, the piston of the cylinder may be reversed—that is to say, the stamps attached to the piston-rod as before, but the cylinder closed at top, and open at bottom. It is necessary to observe that the cylinder in this case should be one-half, two-thirds, or some other convenient proportion, longer than the stroke of the stamp and piston. The stamp is raised by cams, &c., as before; but instead of this action producing a vacuum under the piston, a condensation of air is produced above it, which condensed air, acting in conjunction with the weight of the stamp and piston, forces down the former violently upon the gold quartz or metallic ore to be pulverised, in the manner already explained. It is desirable to have a small valve, opening inwards, in this arrangement, to obviate the evil arising from leakage. The object of these last-named modifications is to obtain, with any prime-mover, the smartness of blow and consequent increase of crushing power which arises from the sudden operation of elastic force. Whether steam or atmospheric air is employed, the piston may be fixed, and the cylinder itself attached to the stamp, and move with it; but the patentee considers the arrangements already described as preferable modes of applying the power.

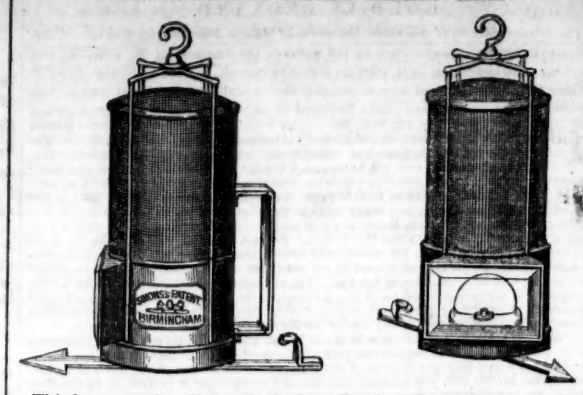
NEW GOLD-WASHING MACHINE.



This machine, invented by Mr. Samuel Starkey, consists of a large cylindrical vessel, firmly fixed on standards, and entirely constructed of galvanised iron, which resists oxidation, having in the centre four blades, or fans, for the purpose of beating up the water against a sieve, placed in the top of the vessel, and on which the ores to be washed are placed. The blades are set in motion by a handle—the action being regulated by a fly-wheel. At the first operation, a coarse sieve should be used, and afterwards finer ones, as required. The blades being made to rotate rapidly by turning the handle, throw the water up against the sieve, and at each revolution a jerking motion is given to this receptacle, which materially aids in separating the gold from other substances. The auriferous matter necessarily falls through the sieve to the bottom of the cylindrical vessel, from which it escapes into a receiver beneath, where it undergoes another washing, when the residue may be collected, and nothing is lost.

The metallic bodies may be washed repeatedly until the finest particles are separated and collected; while nearly all the water being retained, may be again used.

SIMONS'S PATENT SAFETY MINERS' LAMP.



This lamp contains all the principal excellencies of its predecessors, with improvements peculiarly its own. Like all safety-lamps, it is provided with screens of wire-gauze, interposed between the flame and the external air.

Two wire-gauze cylinders, separated from each other by a distance of about ½ in., constitute the upper part of the lamp. A deflector is suspended from the top of the inner cylinder, which prevents the upward current of heated air from making the top of the wire-gauze dangerously hot.

The lower part consists of a metallic cylinder, on one side of which is a large aperture, closed by a film of mica, or talc, and a thick plate of glass. These are separated from each other to such a distance that the glass remains cool after long use, and is hence not liable to fracture from currents of cold air, or contact with water. Behind the flame of the lamp is a reflector for concentrating the light; the lamp reservoir contains sufficient oil to burn six or eight hours successively, and the lamp is trimmed and lighted before it is put into the hands of the miner for use. The two parts of which the lamp consists are fastened together by a locking apparatus, to which the miner has no access, so that he cannot open the lamp, or expose himself and fellow-workmen to danger if disposed; but in order to secure the safety and lives of the miners still further, Mr. Simons has added a very ingenious contrivance, whereby, should the miner possess himself of a corresponding key, or resort to other means of opening the lamp, the first attempt, or motion of the opening parts, detaches a mechanism, which instantly extinguishes the flame, and thus prevents the miner from exposing himself and others to the danger of an unprotected flame. Besides these essential parts, Mr. Simons's lamp possesses every appliance which can make it useful and convenient; it can be supported from its top, side, or bottom, or fixed against the vertical side of the mine, in which position it is capable of rotary motion, so as to direct the light in any desired quarter.

We understand that Mr. Simons has lately been honoured by an appointment as lamp manufacturer to her Majesty.

IMPROVEMENTS IN OBTAINING GOLD.

In our Journal of the 7th inst. we only briefly noticed the process of obtaining gold from the matrix by Mr. Longmaid's patented process, a copy of the specification having only reached us a short time before going to press; as, however, the subject is just now of considerable importance, we proceed to give a more detailed description.

The minerals to be treated may consist of quartz, limestone, clay, sandstone, iron pyrites, or other substances containing gold; in the first place, they are reduced to such a size as to enable them to pass through a sieve of three or more holes to the linear inch, and if the mineral be quartz only, ferruginous, earthy, or alkaline substances are added, capable of forming a fluid slag; 50 parts (by weight) of oxide of iron, 50 parts of lime, and 100 parts of quartz has been found a suitable mixture, when well ground together, and it is preferable that the added minerals, should be auriferous, if such are to be readily obtained. A quantity of mineral (say 2 tons) is placed on the sole of a reverbatory furnace, and when well heated it is stirred occasionally, which has the effect of rendering the slag more fluid. When the charge is well fused, if the gold existed in considerable quantity in the mineral under treatment, it will be mostly precipitated by means of its density, but it will sometimes happen that a portion, and sometimes the entire quantity, is held in solution or suspension in the slag; when this occurs, the patentee puts metallic iron into the furnace, such as boiler-plate, which has the effect of precipitating the gold ore to its surface. The latter metal is separated from the iron by immersing it in molten lead, and the gold afterwards separated from the lead in the usual manner. It is convenient to work a number of charges until a considerable quantity of gold has accumulated in the bottom of the furnace, taking care in tapping off the slag from time to time to allow sufficient to remain to cover the gold. When the gold is to be withdrawn, the bottom is fused as close as may be found convenient, and having obtained the precipitated gold, the remainder is broken up, the pulverised bottom mixed with any suitable flux, and smelted in the same manner, by which means any sensible loss of gold is prevented.

QUARTZ CRUSHER.—An ingenious contrivance, patented by Mr. J. W. Cochran, of New York, is described and illustrated by diagrams in the *Scientific American*: it is called the "planeo-spherical quartz crusher," and consists of a number of large cast-iron balls, which are rotated in channels inside of large cast-iron basins; or there may be a double set of balls, to make the quartz or other ores pass through two operations—the first, or top set of balls, to crush the quartz to a certain degree of fineness, in which state it falls through openings in the bottom of the top basin into the lower one, where it is ground to the utmost degree of fineness. One set of balls forms a single good machine. When there are two sets the upper set have a contrary motion to the lower set, and their weight assists the lower ones in grinding. Any amount of weight, in the shape of rough stones, &c., can be placed in the upper plate, and, instead of a belt to drive the machine by steam or water-power, recesses can be made in the sides of the plate above the balls for the insertion of levers to drive the machine by manual, horse, or other power. Machines of various sizes (says the paper above mentioned) have been constructed upon this principle, and some are now in daily operation, one of which is to be seen at Waterman's ship-block factory, near Peck-slip Ferry, Williamsburgh, where we have seen it in operation. One good feature about this machine is, that a large one can be operated by 1 or 20-horse power, by changing its velocity and proportioning the weight on the top of the balls. With one-horse power it is capable of grinding and crushing 300 lbs. per hour, consequently a power of four-horse applied will grind and crush 1200 lbs. The ore is broken about the size of a large egg with a hammer, and thrown in with a shovel at the top; after that it is seen emerging in the shape of a cloud of dust through the screen, or in a fine paste, if a stream of water is allowed to flow in at the top. No oil is required for lubrication, and none of the friction consumes the applied power.

IMPROVED MANUFACTURE OF MAGNESIA.—A patent has been secured by Mr. T. Richardson, of Newcastle-upon-Tyne, for the manufacture of magnesia and its carbonate by the employment of muriatic acid. The weak acid which is at present allowed to run to waste in alkali works is by preference employed, and its proportions are a quantity containing about 37 parts of pure acid to every 28 parts of magnesian limestone. The latter is either burned to expel the carbonic acid, and then slacked in pits previous to adding the acid, or it may be employed in the natural state reduced to an impalpable powder, the product in the former case being magnesia, and in the latter an impure carbonate, which may be used as such, or its carbonic acid expelled by heat. Sulphate of magnesia, or Epsom salts, is also produced when manufacturing alum. The patentee adds to the alum liquor a sufficient quantity of magnesia, as above obtained, nearly to saturate the excess of acid; the alum is then produced in the usual way, and the sulphate obtained by evaporating the residual liquors. Another improvement is producing sulphate of magnesia from sulphate of iron or copperas water. The iron is obtained as an oxide by the addition of magnesia, and the sulphate of magnesia produced by evaporating the residual liquors. A small quantity of charcoal is added in the process to prevent the formation of ferric or manganic acids. The patentee also manufactures carbonate of magnesia by causing a stream of carbonic acid to be forced through vessels containing magnesia obtained by the former process. A bi-carbonate is thus produced, which enters into solution with the water, from which the carbonate is precipitated by the action of a gentle heat.

FIRE-BRICK GAS RETORTS.—At the meeting of Mechanical Engineers, in Birmingham, Mr. John E. Clift read a paper on an improved construction of fire-brick gas retorts, giving the result of several years' experience of their working at the Birmingham and Staffordshire Gas-Works, where they have been generally adopted, as well as at several other places. These gas retorts are constructed entirely of fire-bricks, except at the mouth-pieces, which are of cast-iron, in the usual form, and the bricks are set in fire-clay, and joined in an ingenious and simple manner, so as to break each joint, and effectually prevent the escape of gas from the retort. Two small retorts are placed at the bottom, and one large one above, 5 feet wide, and all of them are 20 ft. long, being double the usual length, and having a door at both ends. These fire-brick retorts are found to have a great advantage in durability over the ordinary cast-iron retorts, a number of them having been in constant work for eight years, with very slight expense for repairs during the time, are still in good condition, and fit for working several years longer; whilst cast-iron retorts are worn out and renewed six or seven times during the same period. This causes a great economy in the expense of maintaining the fire-brick retorts, and the first cost is less than cast-iron retorts; they are also found less liable to injury in letting down the heat and getting it up again, and equally efficient in the generating of the gas.

RAILWAY WAGONS.—WM. A. ADAMS, MIDLAND WORKS, BIRMINGHAM.
BROAD AND NARROW GUAGE COAL AND IRONSTONE WAGONS,
IN STOCK—FOR SALE OR HIRE. 41

LOSH, WILSON, AND BELL, NEWCASTLE-ON-TYNE,
MANUFACTURERS of BAR-IRON, RAILWAY BARS, FORGE and ENGINE WORK, CAST-IRON GOODS, and STEWART'S PATENT CAST-IRON GAS and WATER PIPES. OFFICE,—7, SISE-LANE, LONDON. 42

MR. ALFRED SENIOR MERRY, DEALER IN COBALT AND NICKEL ORES, AND ASSAYER IN GENERAL.
Address—LEE CRESCENT, BIRMINGHAM. 43

MR. THOMAS EDINGTON (lately Senior Partner of the Phœnix Iron-Works, Glasgow), IRON MERCHANT and CONTRACTOR,
INSPECTOR OF RAILWAY BARS AND CASTINGS,
No. 17, GORDON-STREET, GLASGOW. 44
AGENT (on COMMISSION) for the PURCHASE of SCOTCH PIG-IRON, RAILWAY BARS, BAR-IRON, and CASTINGS.
AGENT for the SALE of ENGLISH BOILER-PLATES, ANGLE and RIVET IRON, ANCHORS, CHAINS, CABLES, NAILS, STEEL, &c.
AGENT for numerous PARTIES in GREAT BRITAIN, IRELAND, GERMANY, FRANCE, AMERICA, INDIA, AUSTRALIA, &c.

MESSRS. JOHNSON and MATTHEY beg to inform MERCHANTS and IMPORTERS of ORES that they have taken the SUFFERANCE WHARF and WAREHOUSES at MILLWALL, known as "MELLISH'S SUFFERANCE WHARF," extending from the RIVER THAMES to the FERRY-ROAD, and erected STEAM-ENGINE and MACHINERY for CRUSHING AND GRINDING GOLD QUARTZ, SILVER, LEAD, and OTHER ORES, and having such properly mixed and sampled for sale; they are also erecting FURNACES and APPARATUS for REDUCTION of ORES of CERTAIN CLASSES, on much improved principles. 45
The management will be under a gentleman who has had very great experience, who will reside on the premises, and act under the immediate supervision of Messrs. Johnson and Matthey. The ore floors and warehouses are well secured, and only those persons engaged in the operations who are well qualified, and of known respectability of character.
The want of such an establishment for the Port of London has been long felt, and Messrs. Johnson and Matthey feel confident of giving satisfaction to those who confide ores to their care.—Office, 79, Hatton-garden, London, July 28, 1852.

ORES AND MINERALS CAREFULLY ASSAYED BY WILLIAM LONGMAID AND SON.—SAMPLES may be LEFT at Mr. C. SMITHERS, carver, gilder, and printseller, 28, BILITER-STREET, CITY; or FORWARDED, carriage paid, to the LABORATORY, 31, BEAUMONT-SQUARE, MILE END, LONDON. 46

GENERAL MINING AND MINE REPORTING OFFICES,
1, CROWN-COURT, THREADNEEDLE-STREET, CITY.
Messrs. M. FRANCIS & CO., MINING BROKERS, appreciating the desideratum of PROVIDING the most AUTHENTIC INFORMATION respecting BRITISH and FOREIGN MINES for those who desire to INVEST SAFELY, have OPENED this OFFICE for the REGISTRATION AND CLASSIFICATION OF THE DIVIDEND-PROMISING AND WORKING MINES. Their REGISTER will be found a VALUABLE INDICATOR, as, from more than 20 years' experience in the successful selection and management of mines, they can confidently advise, so has to insure the most certain and remunerative returns. 47
*** Shares Purchased and Sold—Mines Inspected, &c.

MINE SHARES.—MR. J. H. MURCHISON has SHARES FOR SALE in MINES in CORNWALL and DEVON, of great promise and in full operation, including Wheal Crebor, Boringdon Park, East Boringdon, Caradon Wood, Wheal Fanny, Wheal Williams, East Wheal Russell, North Wheal Robert, West Goginan (Wales), &c. Copies of the most recent statements of accounts and reports may be obtained on application.—38, Threadneedle-street, London. 48

MINE SHARES.—MR. THOMAS BROWN has SHARES FOR SALE in DEVON of great promise, now in full operation, including Yeoland Consols, Boringdon Park, Bottle Hill, and that great ancient tin mine, Wheal Sidney, which is supposed to have been worked productively by the Phœnicians at an early date; five lodes have been extensively wrought upon to a great length, near the surface, but without the aid of powder or machinery; one of these lodes they are now working on, and about 20 tons of ore have been taken up, of a superior quality. The revolving calciner is now actively employed in preparing the tin for sale, which in about three weeks will be ready for market.
N.B.—All reports may be obtained on application to Mr. Thomas Brown, Mining Office, Ridgway, Plympton, Devon. 49

MESSRS. MOLYNEUX AND CO.'S MINING OFFICES REMOVED from No. 34, THREADNEEDLE-STREET, CITY, to No. 114, BISHOPSGATE-STREET WITHIN, opposite CROSBY HALL CHAMBERS.
WEST END OFFICES,—No. 10, BUCKINGHAM-STREET, ADELPHI. 50

MESSRS. MOLYNEUX AND CO., 114, BISHOPSGATE-STREET WITHIN, opposite CROSBY HALL CHAMBERS, and 10, BUCKINGHAM-STREET, ADELPHI.—Offices of the Wheal Fortune (South Tawton, Devon), Great Wheal Tonkin (Callington), Inney Consols (South Petherwin, Cornwall), Wheal Henry (Paul, Cornwall), and other mines. 51

MINING, RAILWAY, AND INSURANCE SHARES.—
Mr. C. DANIEL, No. 3, GEORGE-YARD, LOMBARD-STREET, OFFERS his SERVICES for the PURCHASE or SALE of the ABOVE DESCRIPTION of PROPERTY, and not being a jobber, transacts business for principals only, on commission, and will be happy to furnish information by post or otherwise. 52

CROKER BROTHERS, STOCK AND SHAREBROKERS,
PLYMOUTH. 53

MR. E. COOKE, MINE SHAREBROKER,
No. 2, FRANKFORT-STREET, PLYMOUTH. 54

MR. GEORGE CARNE, DEALER IN STOCKS AND SHARES,
28, THREADNEEDLE-STREET, LONDON. 55

MR. E. B. BROWN, 2, ADAM'S-COURT, OLD BROAD-STREET,
LONDON, DEALS in all the DIVIDEND-PAYING MINES of CORNWALL, and also makes ADVANCES ON THE SAME. 56

MINING RECORD OFFICE, 26, AUSTINFRIARS, LONDON.—
Mr. MANUEL'S OFFICES are expressly for the USE of COMMITTEES and COMPANIES conducting their BUSINESS in LONDON, and entirely free from share dealing. Mr. MANUEL will be happy to CONDUCT the LONDON AGENCY of any MINES now at work, or about to be worked, he having spacious and convenient OFFICES for that PURPOSE.—Terms on which the business is conducted to be had on application, either by letter or in person. 57
Sixteen years' experience will enable Mr. Manuel to give suitable advice on all occasions.—Offices of the West Wheal Rose, West Callington, Busparvo, Gallt-y-Maen, Great Crinnis Consols, Union Tin, &c.

MINING INVESTMENT.—T. FULLER & Co., 51, THREADNEEDLE-STREET, LONDON, beg respectfully to inform the public that they are in a position at all times to BUY and SELL in all DIVIDEND-PAYING MINES, both BRITISH and FOREIGN, most of which will pay from 15 to 25 per cent., and have on hand shares in several mines of great promise, approaching to a dividend state. T. FULLER and CO., being in daily communication with the most respectable mining agents of Devon, Cornwall, and Wales, are able to furnish such information as may be relied on. Business transacted in the AUSTRALIAN and CALIFORNIAN GOLD MINING COMPANIES, and every information given either personally or by letter. 58
And have specially FOR SALE—Butterdon, Bedford United, Castle Dinas, Clive, Wheal Mary Ann, Arthur, Crebor, Devon Consols North, East Wheal Reeth, Gawton United, Wheal Edward, Great Bryn Consols, North Venton, North Tamar, Wheal May, Wheal Zion, Wheal Franco, South Carn Brea, &c.
WANTED—Appledore, Tokenbury Consols, and Craddock Moor.

TO MINING SHAREHOLDERS.—PARTIES contemplating the PURCHASE or SALE of SHARES in MINES, and wishing to know the exact sum paid and received (in all cases), are invited at once to place themselves in COMMUNICATION with "JUSTITIA," who will render, both to those accustomed and to those unaccustomed to mining investments, the most faithful account of every transaction put into his hands; and should he be able to sell at higher, or to buy on lower terms than his instructions, he will certainly do so, and give to his principals the advantage; nor will he buy or sell his own shares to his principals, unless he apprise them that he is so doing. 59
A residence in Cornwall for a considerable period, and a knowledge of the mine agents there, and parties embarked in mines, enable him to supply the most accurate information.
In the first instance, letters to be addressed to "Justitia," care of Mr. Clarke, advertising agent, Finch-lane, City, after which "Justitia's" name and address shall be at the command of his principals.
*** In DIVIDEND MINES, "Justitia" has SHARES at command in Merllyn, Mary Ann, &c., FOR SALE, and for mines of high repute, such as West Wheal Alfred, Clive, Trefusis, &c.

SHARES FOR SALE in the following MINES:—Wheal Brewer, Tavy Consols, Mineral Court, Calstock United, Wood, Alfred Consols, Orsedd, Wheal Maudlin, South Crenver, Stray Park, Court Grange, Birch Tor, United Mines (Tavistock), Hawkmoor, Black Craig, East Balleswidden, Daren, Warleggan Consols, Cally, East Alfred Consols, Gawton United, South of Scotland, Wheal Elizabeth, Yeoland Consols, Bottle Hill, Wheal Augusta, Okel Tor, South Tamar, Wheal Sarah, Calstock Consols, Wheal Golden, Bicton Consols, Allt-y-Crib, and Penzance Consols.
Apply to Mr. J. H. MANDEVILLE, 22, Change-alley, Cornhill. 60

MESSRS. TREDINNICK AND CO., STOCK, SHARE, AND MINING BROKERS, and AUCTIONEERS, No. 6, HAYMARKET, PALL-MALL, LONDON, continue to NEGOCIATE every description of BUSINESS connected with the ABOVE SECURITIES.—Messrs. TREDINNICK and CO. OFFER their SERVICES to CAPITALISTS with every confidence, in the SELECTION of MINES for INVESTMENT—their long and intimate acquaintance with the best mining districts, coupled with the establishment of agents throughout Cornwall and Devon, give them many advantages in having correct and authentic information of the character and value of mining property.—DIVIDEND MINES, well selected, paying 15 to 25 per cent. per annum upon the current value of shares.—Messrs. Tredinnick and Co.'s Circular of Information, with Current List of Prices, forwarded weekly, on the payment of an annual subscription of £1 1s. in advance. 61

CHIRIQUI ROAD COMPANY.—The Directors of the Chiriqui Road Company hereby give Notice, that NO more APPLICATIONS for SHARES in the Company will be RECEIVED after MONDAY, the 30th inst. 62
London, August 23, 1852. JAMES MACQUEEN, Secretary.

FAIRHEAD HARBOUR COMPANY.—The ALLOTMENT of SHARES will TAKE PLACE on MONDAY, the 30th inst.—NO FURTHER APPLICATIONS will be RECEIVED after SATURDAY NEXT, the 28th inst. 63
28, Cornhill, August 20, 1852. DEVON, Chairman.

FAIRHEAD HARBOUR COMPANY.—Increased information as to details, and a minute investigation of the depth of water at particular points, having satisfied the Directors that, by a slight alteration in the locality, an efficient and valuable Harbour may be constructed upon an increased depth of water at a less expense than was originally contemplated, they have determined to act upon the powers reserved to them by the prospectus, and the Directors have resolved accordingly to reduce the capital stock of the Company to the sum of £150,000; and as only a limited number of shares can be allotted to the public, they regret it will not be in their power to comply with the request of many applicants. 64
Saturday, August 28, 1852. By order of the board, DEVON.

SHALE MANURE AND NAPHTHA COMPANY,—Established for the PRODUCTION of MANURES, NAPHTHA, also JET VARNISH PAINT, MINERAL SPIRIT, MACHINE OIL, and ASPHALTUM. The business and interest of the Bituminous Shale Company are now amalgamated with this Company.
Capital £50,000, in 50,000 shares, of £1 each, to be paid-up in full. 65
COMPLETELY REGISTERED.
OFFICES,—145, UPPER THAMES-STREET, LONDON.
CHYMICAL WORKS, WAREHAM, DORSET.
TRUSTEES.
The Hon. FREDERICK G. BRABAZON PONSONBY, Mount-street, Grosvenor-sq.
JAMES WALKINSHAW, Esq., Sackville-street, Piccadilly
Estimates, based on the experience of the Bituminous Shale Company, have been prepared by the order of the board, from which it appears that the existing works, with small additional outlay, are capable of producing a profit exceeding £8000 per annum.—Applications for prospectuses, information, and shares, to Mr. Edw. Routh, 32, Throgmorton-street; and Mr. William Joseph Barker, 7, Tokenhouse-yard, stock and sharebrokers; or to Mr. Algernon M. Pollock, Secretary, at the offices of the Company, 145, Upper Thames-street.

SHALE MANURE AND NAPHTHA COMPANY, 66
No. 145, UPPER THAMES-STREET.
ON SALE,—the ABOVE-MENTIONED PRODUCTS.—Persons desirous of becoming country Agents, are requested to address Mr. F. S. Lee, superintendent of agencies, at the Company's Offices.

SHALE MANURE AND NAPHTHA COMPANY.—It is intended that the future operations of the Company in the MANURE TRADE shall comprise the manufacture of Super-phosphate of Lime (first quality); Coprolites (ground); Shale Manure; English Guano; Blood Manures, &c.; and most particularly a Manure to meet the requirements of the Royal Agricultural Society of England. 67

SHALE MANURE AND NAPHTHA COMPANY.—Notice is hereby given, that NO FURTHER APPLICATIONS for SHARES will be RECEIVED after MONDAY, the 30th August, 1852. By order, 68
ALGERNON POLLOCK, Secretary.

NEW GOLD WASHING MACHINE.—This MACHINE, INVENTED by Mr. SAMUEL STARKEY, consists of a large cylindrical vessel, firmly fixed on standards, and entirely constructed of galvanised iron, which resists oxidation, having in the centre four blades, or fans, for the purpose of beating up the water against a sieve, placed in the top of the vessel, and on which the ores to be washed are placed. The blades are set in motion by a handle—the acting being regulated by a fly-wheel. At the first operation, a coarse sieve should be used, and afterwards finer ones, as required. The blades being made to rotate rapidly by turning the handle, throw the water up against the sieve, and at each revolution a jerking motion is given to this receptacle, which materially aids in separating the gold from other substances. The auriferous matter necessarily falls through the sieve to the bottom of the cylindrical vessel, from which it escapes into a receiver beneath, where it undergoes another washing, when the residue may be collected, and nothing is lost. 69
The metallic bodies may be washed repeatedly, until the finest particles are separated and collected; while nearly all the water being retained, may be again used.
This machine can be had—in frames, or as a wheelbarrow, to vary the price, from Three Guineas to Six Guineas—at Messrs. Lindsays', shipbrokers, 8, Austinfriars; S. W. Silver & Co., 3, Bishopsgate-street-within; and W. Duplack, 4, Staining-lane, Wood-street, Cheapside.

THE MONARCH GOLD MINING COMPANY.
ON THE COST-BOOK PRINCIPLE.
In 25,000 shares, of 10s. each. 70
BANKERS—Messrs. Prescott and Co., Threadneedle-street, City.
This company has been formed for the prosecution of gold discoveries in Australia: 12,500 shares have been appropriated, as specified in the cost-book, and a limited number of the unallotted shares will be issued for the purpose of extending the scale of operations. Scrip certificates to bearer are given in exchange for the bankers' receipts, so that it is not imperative upon adventurers to sign the cost-book. By this means the company becomes in operation *en commandite*, and the liability restricted to the amount subscribed. The company possesses the right to search for, and obtain gold and other minerals over upwards of 15,000 acres of land in various parts of New South Wales, at the moderate dues of 1-20th of the minerals to be raised. The surveyor is also prepared to point out the auriferous formation in several distinct places, and within a short distance of one of the richest gold-fields in the colony.
Sufficient capital has been subscribed to enable the committee to dispatch the surveyor with the first staff of engineers, assayists, and miners about the 15th of Sept. A second staff will be immediately organised under the conduct of an able commissioner, who will represent the company in Australia. The staff, now under orders, consists of men of tried ability and fidelity, and have been selected with great care from more than 200 candidates. The agreement with them is based upon a strict mutuality of interests; the company undertakes to provide all requirements for the intended operations, and the profits are to be divided in equal moieties between the company and the staff. The experience of the more successful gold-finders proves that by such means individual failure is not only counterbalanced, but a healthful regularity of supplies and personal comforts is secured to the agents employed, without let or hindrance, and without the corroding cares and anxieties attendant upon the absence of such wholesome regulations.
It would be superfluous to advert, at this advanced period of the history of Australian gold, to the unprecedented produce of certain districts. The yield is now estimated to be approaching a million sterling per month! Individual success (under every disadvantage), in some instances, is scarcely credible. Some persons have already returned to the land of their birth with large fortunes—many, with a competence, and all resulting from the labour of a few months! It is sufficient to note these facts, and to peruse the vivid descriptions contained in the "Further Papers relative to the Discovery of Gold in Australia," presented to Parliament, by command of Her Majesty, just before the close of the session, to prove, beyond the possibility of a doubt, that, with well-directed energy, skill, integrity, and even a limited capital, the profits to be derived from the prosecution of gold researches, in the manner contemplated by this company, cannot fail of being more than ordinarily remunerative.
Prospectus may be obtained of John Guillemard, Esq., of 3, Bartholomew-lane and Stock Exchange, and of Mr. T. A. Readwin, 2, Winchester-buildings, City, where also plans of the estates, and the rules and regulations of the company may be inspected.
Dated this 28th day of August, 1852.

THE NOUVEAU MONDE GOLD MINING COMPANY.—
The shareholders of this Company are respectfully informed, that a PAMPHLET, containing the Lease of the Mines, Works, and Property of the Merced Mining Company, with extracts from the correspondence relative thereto, will be READY for DELIVERY on application at this office, 5, Queen-street-place, Thames-street, on and after MONDAY next, the 30th inst. JOHN TAYLOR AND SONS, 71
Agents for the Company in London.

AUSTRALASIAN EMIGRANTS' MONETARY AID COMPANY.
PROVISIONALLY REGISTERED.
OFFICES,—9, Austinfriars (emigrants' entrance, Austinfriars-passage). 72
Thousands of British subjects are anxious to emigrate, but they cannot command the pecuniary means, and this Company, while offering to the public a highly profitable investment, has been formed to supply emigrants with aid on advantageous terms.
The Directors have no doubt of being enabled to declare a dividend of 5 per cent. the first year, and 15 per cent. afterwards.
The Directors have the pleasure to announce, that a Petition has been presented by them, praying for Her Majesty's ROYAL CHARTER OF INCORPORATION of this COMPANY, and that the draft of the proposed Charter has also been lodged.

FORM OF APPLICATION FOR SHARES.
To the Provisional Directors of the Australasian Emigrants' Monetary Aid Company.
I request you to allot me shares in the above undertaking, and I hereby agree to accept the said shares, or any less number that you may allot me, and to pay the sum of 20s. for each at the time to be specified in your letter of allotment, and sign the Deed of Settlement when required.
Referee's name..... Name in full.....
Residence..... Residence.....
Occupation..... Occupation.....
Date.....
For prospectuses and shares apply at the offices, or to Oliver Raymond, Esq., No. 6, Bank Chambers, the broker to the Company. JOHN BOYD, Manager pro tem.

REPORT ON THE GREAT CRINNIS COPPER MINE.—
The Committee of this Company have again satisfied themselves as to the veracity of the reports made to them by various mining captains concerning the merit and wealth of the Great Crinnis Copper Mines, from whence they have just returned. They spent several days with some practical miners, and Captain John Webb, in examining such of the old workings as the ground permitted. There are eight shafts in good order, though only five are mentioned in the prospectus: these shafts will be the saving of great expenditure, and will facilitate the development of every lode. 73
In the shallow workings, on the 16th inst., several pieces of ore were broken from the front and back of the lode, measuring 24 feet in thickness, and are for inspection at the offices of the Company, 26, Austinfriars.
A most satisfactory interview was had with Colonel Carlyon, who expressed his opinion, which is also universal in the country, as to the richness of Great Crinnis, likewise his sanguine expectations of seeing it ere long, still the most valuable property on his estate. Documents were shown to the Committee, whereby Colonel Carlyon's father received £150,000 of dues in nine years—proving this mine to be one of the richest in England.
There are, at the present moment, in the old workings, many thousand tons of ore left unnoticed by the former proprietors, but which, with the actual mode of crushing and washing, will make immediate returns.
Arrangements have been made for machinery for crushing and dressing, as also for a pumping engine, which will effectually drain the mine in about two months after erection, when a quantity of ore will be raised by tributers.
Made at St. Austell, Cornwall, by FRANCIS N. DUDOT, C.E.
By order of the board, R. C. MANUEL, Secretary.
26, Austinfriars, August 20, 1852.

CALLINGTON MINES COMPANY.—At an ADJOURNED MEETING of the adventurers, held on Tuesday, the 24th inst., at the offices of the Company, Salvador-house, Bishopsgate-street,
SAMUEL BETTELEY, Esq., in the chair, 74
The notice convening the meeting having been read,—
Mr. Sewel explained that the adjournment was to give time to frame new rules, and he would read them *seriatim*.
Mr. T. Watson proposed Resolution 1; seconded by Mr. Hammond, and resolved,—
That the rules and regulations by which this Company has been heretofore carried on and managed, be altered and amended, and that the following rules and regulations, for the management and carrying on of the Company, be henceforth taken, and adopted, and entered in the cost and transfer books accordingly:—
Mr. T. Watson proposed, and Mr. Hammond, seconded,—
2. That Mr. P. Stainsby be the Treasurer of this Company, at the salary of £12 10s. per month, which shall include use of office and the duties of secretary, with an allowance of £2 2s. per month for petty expenses. This salary to be increased to the Treasurer when the mine becomes prosperous.
3. Resolved,—That Messrs. Bosanquet and Co. be the Bankers of the Company.
4. Resolved,—That the late directors be, and are hereby, requested to transfer the moneys and other effects in their names and keeping to Mr. Stainsby, the treasurer of the Company, and that the outstanding acceptances of the said directors, made on account of the Company, be met by the treasurer, to whom the directors will also endorse all bills receivable (if any) belonging to the adventurers.
5. Resolved,—That this meeting is of opinion that a reference to the financial statement of the adventure cannot fail to impress upon those in arrears of calls the great necessity of immediately paying the same, either to the treasurer of the Company direct, or to his account with Messrs. Bosanquet and Co.
6. Resolved,—That all shares on which any call or calls may remain unpaid on the 7th September next, be thenceforth charged with interest on the arrears, after the rate of 5 per cent. per annum; but this resolution is not intended to affect, in any way whatsoever, the 8th Rule of the Company, whereby shares in arrear may be forfeited.
7. Resolved,—That the treasurer do convene a two-monthly general meeting of the adventurers, to be held on Thursday, the 30th September.

GREAT BRYN MINING COMPANY.—At a GENERAL MEETING of Shareholders, held at the offices, 76, King William-street, on Thursday last, 75
WILLIAM GARNER, Esq., in the chair.
The Chairman read the minutes of the Committee Meeting (11th June), the Special General Meeting (14th June), and the Committee Meetings (4th and 5th August), all of which were unanimously confirmed.
Mr. Lelean (the secretary) read the Report of the Committee; after which the following resolutions were carried unanimously:—
Moved by Mr. Henry Molyneux; seconded by Mr. James Williamson:—
That the report now read be adopted.
Moved by Prof. White; seconded by Mr. Steele:—
That the thanks of this meeting be given to the Chairman and Directors of the Company for their past services, and especially to Mr. Lelean, for the able and energetic manner in which he conducted the negociation relative to the purchase of the boiler.

TRENAULT LIME AND COPPER COMPANY.—The Committee of Management of this Company are prepared to RECEIVE APPLICATIONS, BY LETTER, for the RESERVED SHARES, as recommended in their Report of the 15th July.—Copies of the Report, &c., may be obtained at the offices of the Company, 30, Bucklersbury, City, London. 76

EAST WHEAL VOR (TIN AND COPPER),
NEAR HELSTON, CORNWALL.
TO BE WORKED ON THE COST-BOOK SYSTEM.
Dues 1-18th—Lease 21 years—in 10,000 shares, of 21s. each.
OFFICES,—75, CORNHILL. 77
COMMITTEE OF MANAGEMENT IN LONDON.
JOHN EBENEZER DUNT, Esq., Esq., Cockspur-street
GEORGE BURGE, Esq., Shaftesbury-terrace, Pimlico.
JOHN SEYMOUR CARLIN, Esq., Gracechurch-street
BANKERS—The Union Bank, Princes-street.
BROKERS—Messrs. Foster Brothers and Co., 27, Tokenhouse-yard, London.
PURSER—D. G. Goatley, Esq.
The MINE is situated in the richest tin district of CORNWALL, and adjoins the celebrated tin mines Wheal Vor and Great Work, in the junction of the granite and killas formation, where the great mineral deposits are invariably found. The deepest part of the mine is only fifty-five fathoms, whilst the adjoining mine (Wheal Vor) raised the greatest part of its ore below that depth, and it was rich at 300 fathoms from the surface, and gave a clear profit of £600,000. There has been upwards of £6000 expended on the mine in adits, sinking shafts, extending the levels on the lodes, building the necessary houses, consisting of an engine-house, account-house, material and powder-houses, and smiths and carpenters' shops, which are in good order, so that in three months the mine may be drained to the bottom, and contracts made with tributers at 5s. to 8s. in £1.
It is proposed to sell 6000 of the 10,000 shares at 21s. each, and to appropriate the remaining shares for the past outlay. This capital is considered sufficient to supply the requisite machinery, and to bring the mine into a most profitable and dividend-paying state.
Application for shares may be made to Messrs. Foster, Brothers and Co., Tokenhouse Yard, or to the Purser, at the Offices of the Mine, 75, Cornhill, where plans, reports, and prospectuses may be obtained.

DUKE OF CORNWALL CONSOLIDATED TIN MINING COMPANY.—In 4000 shares.
CONDUCTED ON THE COST-BOOK PRINCIPLE. 78
COMMITTEE.
WILLIAM WILLS, Esq., Totnes, Devon.
WILLIAM BROWSE, Esq., 9, Carlton-terrace, Harrow-road.
JOHN HEXT, Esq., Westerland, Marldon, Devon.
H. PEARCE, Esq., 4, Connaught-place, Edgeware-road.
BANKERS—Devon and Cornwall Banking Company, Totnes and Exeter.
PURSER—George Stranger, Esq., Holne, near Ashburton.
SECRETARY—Thomas Fuller, Esq.
OFFICES OF THE COMPANY,—No. 51, TREADNEELE-STREET, LONDON.
This mine is held under lease direct from the Duchy of Cornwall, for 21 years, at 1-18th dues, and is situated on the eastern boundary of the Forest of Dartmoor, near the junction of the East and West Dart River, being distant six miles from Ashburton. The sett is very extensive, being two miles and a quarter long on the course of the lodes, and two miles and a half wide; is bounded on the south and east by the East and West Dart River, and on the west from Cherry Brook, there being a perpetual and ample supply of water for all requisite purposes, such as pumping, drawing, and dressing the ores, and good facility for carriage of materials, &c.
There are several lodes traversing in an east and west direction running through the sett, from which considerable returns have been made, the tin being of the richest character, and producing on an average £50 per ton.
A matter of the greatest importance to the economical working of the mine is the possession of unlimited water-power equal to the utmost requirements of the mine, which are commanded by two water-wheels, stamps, pumps, rods, &c., of sufficient power to carry on the operations upon a more extensive scale, and to place this mine in a profitable and dividend-paying state.
To carry out these views effectually, the present proprietors propose to issue 1000 shares at £1 each, the proceeds of which are to be placed for the future working of the mine, which is considered ample for all purposes.
Application for shares to be made to the secretary, at the offices of the company, and to the following brokers:—J. R. Thomas, Esq., Bristol; John Clark, Esq., Southampton; Thomas Sandford, Esq., Exeter; Messrs. T. W. Flint and Co., Hull; and G. Stranger, Esq., Holne, near Ashburton.

The following report of one of the most eminent practical miners of the day furnishes indisputable evidence of the value of this property:—
To the Proprietors of the Duke of Cornwall Consolidated Tin Mining Company.
March 13, 1852.—I have considered the prospects of your mineral property, after the survey made by Dr. Wills, and your very kind co-operation. The sett is in the south-eastern portion of the Dartmoor granite range, and occupies about two to three square miles, between the branches of the Dart to where they meet. This tract of land, like many of stanniferous attributes, is distinguished by ancient excavations. Its geological features are favourable, and its local position is advantageous; and as regards economical working, the facilities are great, having abundant and perpetual water-power, and easy rock to excavate. There are four positions ascertained at present in the property; the two first are contiguous to the southern portion, and the other two are in the northern portion. The first, or most southern, has been excavated in the eastern and lower portion from the rivers, and its upper positions have been ascertained by costeaning, and it is found to consist of three lodes, of which the two northern underlay south, and the southern underlays north, thereby forming two junctions at shallow and deep points—the positions of their natural capability of bearing tin. The first has been excavated greatly, and doubtless has proved productive; but the second junction, owing to its depth, which is probably from 35 to 40 fms., has not been touched, and, therefore, remains to be investigated, and will probably prove as lucrative as the first junction, as the geological positions are similar. The second series of lodes, forming the second position contiguous to the former, have been extensively worked in former times from the level of the river, westward, into the hill, for about 100 fms. in length. It consists of three parallel lodes, in a semi-decomposed granite, intersected by north and south courses. This ground has evidently been very lucrative, and has, most probably, been suspended in consequence of being intercepted by the vertical hard layers incident to decomposed granite, which I have often found to be the apparent cause of the termination of old workings in the granite ranges. The present operation on this course is confined to the plantation westward on the side of the hill, about 32 fms. above the level of the deep adit from the river, and about 60 fms. from the end of the old workings. A shallow adit has been driven north on the course of a lode intersecting the three east and west lodes in their position. This adit gives about 7 fms. backs, and a shaft is being sunk below it on the course of the inclination of the north and south lode westward towards the point of junction. This operation is facilitated by means of a water-wheel 28 ft. diameter by 3½ ft. breast, connected by 75 fms. of horizontal rods to the pumps. The shaft is at present 7 fms. below the shallow adit, and it should be continued. I would advise, at the same time, that the deep adit should be brought up to meet it, for I believe, after passing the vertical bar mentioned, a similar and more important channel of tin ground than occurred in the old working would be intercepted, and, at the same time, this deep adit would be a favourable point to investigate the lowest junction mentioned in the first position. The principal of the two northern workings is at the shaft on the summit of the hill; the features are very different here from the before-mentioned, and the character of lode of a different order. These workings are commanded by a water-wheel, 24 ft. by 3½ ft., connected to the pumps by 200 fms. of flat-rods. The shaft is down 14 fms., and proves the continuity of the lode under favourable circumstances, so that the level projections east and west will evidently open into very good tin ground. This position I would advise to be prosecuted with all vigour. The amount of capital expended, I should say, would be £450, but the value of the operations, particularly the deep adit in the southern part of the mine, being driven upwards of 100 fms. towards, as we now find, two important objects, is much more—say, an addition of £400 towards the capital.
ADAM MURRAY.

SOUTH WALES AND GREAT WESTERN COAL COMPANY.

Capital £60,000, in 12,000 shares, of £5 each.
£2 10s. per share, payable on allotment: £1 10s. per share, payable in two months, and no further call unless required, and by authority of the shareholders.

On the "Cost-book" System, requiring no Deed of Settlement, no Transfer Deed to pass shares.—Bi-monthly meetings will be held, at which the accounts of receipts and expenditure will be passed and balanced.

Neither the committee nor any co-adventurers will have power to bind the Company or any member of it by bills or notes, or by borrowing money.

MANAGING COMMITTEE.

ANTHONY KINGTON BAKER, Esq., Longford House, Cheltenham
EDWARD ESDAILE, Esq., City Saw Mills, Regent's Canal
WILLIAM DANIEL OWEN, Esq., the Grove, Highgate
THOMAS SPARKE PARRY, Esq., Paddington, coal merchant
HENRY PAULL, Esq., 33, Devonshire-place, Portland-place
JAMES WALKINSHAW, Esq., Sackville-street, Piccadilly

OFFICES OF THE COMPANY,—33, MOORGATE-STREET.

BANKERS—Messrs. Prescott, Grote, Cave, and Co.
SOLICITOR—J. A. M. Pinniger, Esq., 5, Raymond-buildings, Gray's Inn.
BROKERS—Messrs. Hutchinson and Son, 39, Lothbury.
SECRETARY (pro tem.)—Archibald Dunlop, Esq.

The completion of the South Wales Railway, establishing a direct communication between Swansea and the metropolis, has led to the formation of this Company, which proposes to supply London and the intermediate towns* upon the Great Western Railway with coals from South Wales, at considerably reduced prices, and of a quality possessing all the valuable properties for household and manufacturing purposes which have hitherto enabled the coal proprietors of Northumberland and Durham to command nearly the whole of the vast coal trade with London, amounting to 3,500,000 tons annually.

With this view the Company have purchased, on advantageous terms, the Cefn Cwsk and Park Tyr Gunter coal-fields, in the Llynvi Valley, near Pyle, Glamorganshire, extending over an area of nearly 1300 acres, and containing 10 seams of coal, already proved and opened out for working, and varying from 4 to 30 feet in thickness.

The properties lie about 2½ miles from the Stormy Goods Station on the South Wales Railway, to which a broad guage line is now in course of construction, and they are about double that distance from the shipping ports of Port Talbot and Porth Cawl, with both of which there is already direct railway communication.

Besides the particular descriptions of coal above adverted to, these properties also contain others the best adapted for the manufacture of coke, and for use in the mining districts of Cornwall and Devon, for both which purposes there is the prospect of a very extensive and profitable trade.

There are sufficient pits, engines, machinery, railways, coking ovens, buildings, and plant to ensure an immediate and continuous supply of 2000 tons per week, and, with a moderate outlay, any increased quantity which might be required.

There are also attached to the colliery, iron-works, with three blast-furnaces, and all the requisite buildings, machinery, and gear for the manufacture of pig-iron, and the property also contains ample mine or ironstone and limestone.

The Company proposes to let these, and to confine its own operations exclusively to the coal trade.

A negociation is proceeding, by which it is expected to realise this object; and, if attained, it will, besides yielding a considerable increase to the present estimated revenue, furnish a profitable outlet for the small coal.

The properties are held on long leases, at moderate rents, and are already being worked to a considerable extent.

The system of management proposed will ensure the working of the colliery upon the most improved and economical principles; the greater part of the working will be done by contract, at a very low rate of expense. An arrangement has been concluded with the Great Western and South Wales Railway Companies for the conveyance of the coal and coke; connections are also formed for shipping from the adjoining harbours of Port Talbot and Swansea; and that there will be always a market for all the coals which can be raised it is only necessary to say that, independently of the local and shipping trade, there are parties of known experience and responsibility ready at once to contract for the purchase of from 50,000 to 100,000 tons of coals annually for London and the principal towns upon the lines of railway, at a price which will leave a liberal profit to the company.

Great pains have been taken to procure the best information with regard to the quantities and qualities of coal and coke which can and are likely to be obtained from South Wales, and the cost at which it can be supplied; and whilst it is confidently asserted that neither in quality or price has this company anything to fear from competition in that locality, it will nevertheless be open to them, if it were at any time found desirable to increase their operations, to make advantageous arrangements with that view. By the terms of purchase the larger proportion of the purchase money will be payable upon the delivery of possession of the works. The residue will be payable in five years with interest, and in the meantime will be a charge on the property only, and will not involve the personal responsibility of the company, or any individual member of it.

The sum proposed to be raised (£4 per share) will suffice to pay the agreed instalment of the purchase money, to defray all preliminary expenses, and the cost of some proposed necessary additions to, and improvements of, the works, and to provide an ample floating capital for carrying on the business. Thus the affairs of the company will be established on a firm and safe basis: there will be no necessity for, or object in, contracting debts, as the subsequent outgoings will be limited to the actual working expenses, and for these there will be always ample funds in hand. The peculiar system of the Cost-book Principle (which will be rigidly adhered to, as regards the frequent meetings of the shareholders for discussion of the affairs and settlement of the accounts of the company) will keep the shareholders acquainted with the precise circumstances of the concern, and as no new liability can be incurred without their knowledge and sanction, and retirement from the company is unrestricted, will secure them, practically, all the advantages of a charter expressly limiting the liability of a member to the amount of his subscription.

The promoters have delayed submitting the proposed undertaking to the consideration of the public until satisfied by a long and careful investigation, which has been conducted by practical and experienced persons, of its soundness as a commercial enterprise, and of the certainty of its yielding a very remunerative return for the capital invested.

From calculations made upon data supplied by actual experience of the cost of raising the coal, by the charges of conveyance upon the railways, and the prices offered for the coal in London, it does not admit of doubt that, besides paying an annual dividend of from £10 to £15 per cent. as a minimum, the profits will provide a sinking fund for redeeming the purchase money, and the whole amount of advance on shares, within 10 or 12 years.

Applications for shares may be made in the annexed form, addressed to the secretary (by whom any further information will be furnished), at the company's temporary offices; or to the company's sharebrokers, Messrs. Hutchinson and Son, 39, Lothbury; from either of whom prospectuses may be obtained on application.

APPLICATION FOR SHARES.

To the Committee of the South Wales and Great Western Coal Company.

Gentlemen,—I request you to allot me shares in the above company, and I hereby agree to accept the same, or any less number which may be allotted to me, and when called upon to pay the deposit of £2 10s., and the instalment of £1 10s. per share thereon, and to hold the same shares on the terms and conditions of the company's cost-book.

Name in full.....
Residence .....
Occupation .....
Reference .....
Date .....

* Cheltenham, Gloucester, Swindon, Chippenham, Wootton Basset, Corsham, Farringdon, Wantage, Abingdon, Oxford, Woodstock, Wallinford, Newbury, Goring, Pangbourne, Reading, Maidenhead, Windsor, and Slough may be enumerated as some of them.

AUGUSTA CONSOLS COPPER MINING COMPANY.

Divided into 4000 shares.

CONDUCTED ON THE COST-BOOK PRINCIPLE.

SECRETARY—Mr. T. Fuller, 51, Threadneedle-street, London. £0

This mine is situate in the parish of Bridestowe, Devon, north of the Great Wheal Friendship Copper Mine, from which upwards of £1,132,666 of ore has been raised. There are three copper and two lead lodes, intersected by a caunter running through the sett, a distance of 600 fms., and in a congenial stratum of blue clay-slate or killas, the principal one being 8 feet wide, underlaying north, composed of gossan, strongly impregnated with the carbonate of copper, spar, prian, peach, mundic, and rich stones of yellow copper ore, varying from 1 to 5 cwts. A shaft has been sunk 10 fms. on the lode, and about 20 tons of copper ore have been taken therefrom, worth at the present standard £10 per ton; this lode is reported as being 2½ feet wide, solid ore in the bottom of the shaft, and improving in going down. A deep adit has been driven about 60 fathoms, and there only remains about 6 fms. more driving to cut this lode 30 fathoms from the surface, as judging from the present underlie of the lode in the shaft, which affords a strong presumption that a good course of copper ore will be met with, and the most beneficial results obtained.

The other lodes are composed of similar substances, being of the most congenial nature to the production of copper ore, proving this property to possess indisputably all the geological conditions requisite for the existence of metallic substances; the same being intersected by powerful cross-courses, on one of which an adit has been driven 80 fathoms, which will cut the copper lodes at an increased depth, the end of which is within 30 fathoms of the former, and will give considerable backs to explore, which affords the greatest encouragement to hope for a highly successful result from these operations; and which, of itself, is calculated to give a large and immediate return for the capital invested. A reference, however, to the agents' reports will give a better idea of the nature and capabilities of this property, and by whose recommendation it is proposed to carry it out. A matter of great importance is the possession of unlimited water-power, equal to the utmost requirements of the mine, and good facility of carriage for materials, being of the greatest importance to mining operations.

Future calls, if required, will not exceed 2s. 6d. per share, at intervals of at least three months, and in no case is it likely that the total amount of further calls will exceed 5s. per share.

Detailed reports from experienced mine agents were published in the *Mining Journal* of the 24th July, and which, with all other particulars, can be obtained at the company's office, 51, Threadneedle-street, London, where large samples of the copper ore and the gossan, &c., may be seen.

VEGETABLE GAS-LIGHT COMPANY.—This Company having,

under the security of Letters Patent, extended their Capital and Premises, are now ready to carry out Contracts for Lighting Villages, Manufactories, Railway Stations, Churches, Public Buildings, Noblemen's Mansions, or any detached Private Dwellings. £1

This Gas has three or four times the illuminating power of coal gas, it creates much less heat, and can, therefore, be applied with comfort and safety to small apartments; it is perfectly free from any admixture of sulphur, and has no offensive smell or other noxious quality. The apparatus occupies small space, and is easily worked, and from its construction there is remarkable security against danger of explosion.

It may be seen in full operation at the Company's Works, No. 10, Portland-place, Wandsworth-road, or at Eton College, the town of Blackpool, railway stations, and other places.

Prospectuses and full particulars may be had on application, personally or by letter, at the Company's offices, No. 127, Leadenhall-street.

By order of the Board, J. C. STEWART, Secretary.

GREAT WHEAL TONKIN COPPER, TIN, AND SILVER-LEAD MINING COMPANY.

Now in full work.—Conducted on the "Cost-book" System.
In 6000 shares, of £1 each.

COMMITTEE OF MANAGEMENT.

JOHN FORREST, Esq., Mineralogist, Somers-town, London.
W. WHITE, Esq., Professor of Chemistry, Bow.
H. MOLYNEUX, Esq., Kingsland.
W. LELEAN, Esq., 76, King William-street. £2
(With power to add to their number.)

BANKERS—Union Bank of London, 4, Pall-Mall East.
RESIDENT MANAGER—Robert Serjeant, Esq., Callington
SOLICITOR—Thomas Thompson, Esq., 11, Size-lane, City.
SECRETARY—Mr. R. T. Molyneux, 10, Buckingham-street, Strand, London.

This MINE is situated in the south-west declivity of Kit Hill, and Hingston Down, near CALLINGTON, in the celebrated rich metalliferous district of EAST CORNWALL. Leases have been obtained of this valuable mineral property from the Right Hon. Lord Ashburton and George Strode, Esq., at a moderate royalty.

The sett is very extensive, and contains numerous lodes, in strata highly congenial for mineral deposits. Five of these lodes have been opened, and others have been worked in the adjoining mines. One lode is from 5 to 6 feet wide, of considerable value, producing rich black, grey, and yellow ore, at a depth of 4 fathoms only from the surface. A second lode, 6 feet wide, produces tin of excellent quality; three other lodes have appearances of the most flattering character, and all the workings have lately been inspected by several mining surveyors, whose practical knowledge is universally admitted, and abstracts of whose reports are appended.

The present proprietors have much pleasure in being able to state, that from discoveries already made, the working capital of £3000, which will be devoted to the operations of the mine, is, by experienced miners, considered amply sufficient to erect the necessary machinery, and do all the work required to bring the mine into a dividend-paying state.

The proprietors reserve a right of 3000 shares, as compensation for work done and discoveries made—expenses already laid out on the mine, &c. There will be no liability beyond the 20s. per share.

Detailed reports, from experienced mining captains, appeared in the *Mining Journal* of the 31st July,—and which, with every further particular, may be obtained at the offices of the company, 10, Buckingham-street, Adelphi, Strand; and of Messrs. Molyneux and Co., No. 34, Threadneedle-street, London, where specimens of the ore may be seen, and applications made for the remaining shares.

THE ROUGHTENGILL SILVER-LEAD AND COPPER MINING COMPANY, CALDBECK FELLS, CUMBERLAND.

Divided into 20,000 parts of £1 each.

TO BE CONDUCTED ON THE COST-BOOK PRINCIPLE.

MANAGER OF THE MINE—Mr. Samuel Merryweather. £3
SECRETARY—Mr. W. H. Fox.
OFFICES,—No. 7, GEORGE-YARD, LOMBARD-STREET.

This valuable property is held under lease from Earl Pomfret and others, for 21 years, 18 of which are unexpired, and comprises an extensive sett about two miles long and one mile broad. Smelting works, capable of returning 100 tons of ore per month, have been recently erected at an expense of about £3000.

The water-power, which is free of charge, is adequate to all the purposes of driving the machinery and dressing the ores. Large returns have been made under great disadvantages, but a powerful water-wheel, with stamps, crushers, &c., is being erected, and new floors laid, which will not only ensure large but regular returns. There is at present nearly £2000 worth of ore broken and on the surface, and the mine is now paying its cost, although nearly half the labour is employed on dead work.

For the last three years, this sett has been worked by two gentlemen, one of whom retains his interest, taking 8000 shares on account of such interest; the interest of the other party, who retires, has been purchased for a like number of shares; the remaining 4000 are to be sold to provide a capital for any contingency that may arise.

From the report of Mr. Arthur Dean, M. and C. E. (which appeared in the *Mining Journal* of the 14th August), it will be seen that the whole of the works, which have been directed with superior judgment, are in first-rate condition, and that large profits may be anticipated in a very short period.

As a permanent investment it is particularly recommended, no further capital can be required, and as it is conducted on the Cost-book Principle no further liabilities can be incurred.

Specimens of the products of the mine may be seen at the offices of the company.

Applications for the shares to be made to Mr. W. H. Fox, the secretary; or to Mr. James Crofts, mining broker, 4, King-street, Cheapside.

THE HARTOPP & WEST KERRY COPPER MINING COMPANY, IRELAND.—(Provisionally Registered.)

In 15,000 shares, of £1 each.—No further call or liability.

DIRECTORS. £4

W. TURNER, Esq., Clarges-street, Piccadilly.
GEORGE CARTER, Esq., Lombard-street.
FREDERICK RICKETTS, Esq., Surbiton-hill, Surrey.
E. MANBY, Esq., Buckingham-street, Adelphi.
BANKERS—Sir J. W. Lubbock, Forster, and Co., 11, Mansion House-street.
SOLICITOR—P. Grosvenor Greville, Esq., 42, Lombard-street.
BROKERS—Messrs. Lind and Rickard, Bank-chambers, Lothbury.
CONSULTING MINING ENGINEER—Captain William Thomas, Kenmare Mines, and Coosheen, Ireland.
TEMPORARY OFFICES,—No. 42 (SECOND-FLOOR), LOMBARD-STREET.

PROSPECTUS.

This valuable mining sett, comprising upwards of 10,000 statute acres, is situate on the north side of the Kenmare Bay, County Kerry, Ireland, parallel to the Great Berehaven Mines on the south side, the lodes of the two mines being precisely similar in appearance. The lodes in this sett are, moreover, traceable at surface without interruption for a much greater extent, running east and west in a straight line down the river from the Kenmare Mines, which are situate at its head.

One of the great advantages this property possesses is, that it can be worked to a depth of 150 fathoms without the aid of steam or water machinery, as the lodes run through a hill 1200 feet high, and are to be seen in the valley on the eastern side, as well as at surface, in the course of their range until they approach the western extremity. There is throughout the year a powerful supply of water for crushing, stamping, and dressing the ore; and from the dressing-floors there is an excellent road lately made by the Board of Works to the quay, where vessels from 200 to 300 tons can load and discharge cargoes at all seasons. The harbour is distant from the mines about two miles, and the carriage consequently insignificant.

Accurate surveys have been made, and the mines reported on by Captain John Petherick, of the Mining Company of Ireland, and Captain William Thomas, of the Coosheen and Kenmare Mines, and from the rich specimens of copper ore, of which there are considerable quantities at surface, obtained from different points of the lodes, which vary from 4 to 20 feet in width, there is little or no doubt this mine will rival in richness the Berehaven Mines, for which the average annual produce for 10 years has exceeded £40,000.

The assays of Mr. Mitchell, the metallurgist, of three average samples submitted to him, are as follows:—

No. 1, produce 12 per cent. of copper; No. 2, 24 per cent. of ditto; No. 3, 22 per cent. of ditto.

These specimens were taken from the shallow depth of 7 to 12 fathoms; and it will be apparent that the ore is three times the average richness of those of Cornwall and Devon; and it is confidently assumed, that when a greater depth is obtained, the ores will increase in richness of produce.

The following are extracts from the several reports, which may be seen at the offices of the company.

EXTRACTS FROM CAPTAIN W. THOMAS'S REPORT.

Kenmare, June 18, 1852.—These mines are situate in the parish of Kilcrohane and County of Kerry, at the north side of the Kenmare Harbour, and about seven miles from the entrance from the Atlantic. The Berehaven Mines are opposite, and Ballydonegan Bay, whilst West Cove affords a safe place in all weathers for vessels of 200 tons, and from which all ore can be shipped and materials landed at a trifling cost. A large lode is in the mountain about a mile, and running south-east and north-west, obliquely to the stratum, which is composed of compact clay-slate. The mountain is about 1000 feet above the sea level, and, from its elevation, the mines may be extensively worked by means of adit levels, without the aid of machinery. There is a valuable and constant supply of water available for crushing and dressing the ore. The extent of the sett on the run of the lodes is fully two miles, and contains 7000 (Irish) acres. Superficial excavations have been made in the lodes in the mountain, and rich stones of copper are found in the heaps of rubbish. The lode crops out in the mountain, and is from 4 to 20 feet wide, composed of quartz and fine stones of ore. About the centre of the mountain the lode appears to have been intersected by a cross-course, and, judging in this place from the favourable change in the stratum, I am of opinion that it will produce considerable quantities of copper. The Berehaven Mines, as before mentioned, are on the opposite side of the bay, and in similar strata, and the appearance of the lodes at surface of a similar character; and I see no reason why the lodes in these mines may not become as productive of minerals as the Berehaven Mines. I have carefully surveyed the property, and am of the opinion that the mines are valuable, and likely to be permanent and lasting. I have further to state, that I consider it a safe speculation, holding out every prospect of yielding large returns upon the capital that may be invested. W. THOMAS.

EXTRACTS FROM THE REPORT OF CAPTAIN JOHN PETHERICK, OF THE MINING COMPANY OF IRELAND.

The lode occurs in a formation of compact slate rock, on the south side of a precipitous mountain, and about two miles from the Kenmare River. For a considerable length its width varies from 6 to 10 feet; and although in some parts it does not appear to be more than 4 feet wide, I could trace it distinctly and almost uninterruptedly for a distance of nearly two miles, and it is by far the most regular vein that I have seen in this country. From the uniform character of the rock formation throughout the district, and the appearance of metallic indications, it is more than probable that there are other and possibly more promising lodes yet undiscovered. I must not omit to state that the green oxide of copper is very abundant in different parts of the lode, as will be apparent on an inspection of the specimens sent herewith. This, I need not say, is a very favourable indication; and in conjunction with its great size, extreme regularity, and the important circumstance of its producing copper in different parts, together with its generally favourable appearance, warrants an effectual trial. The natural advantages of the situation are very great, and afford the means of exploring the lode to a satisfactory extent at a comparatively moderate expense. The rock formation at the Allihies (now the Berehaven Mines) is precisely analogous with that of West Cove, and, on the whole, my inspection of those mines has proved very satisfactory, and tends to confirm the very favourable opinion I entertain of the prospects at West Cove.

JOHN PETHERICK, Manager of the Mining Company of Ireland.

The proposed capital is considered amply sufficient effectually to develope the mine and yield a large return, considering that no expensive machinery of any kind will be required. The lease is held direct from the freeholder for a term of 31 years, from the 24th June last, at dues of 1-15th; and arrangements upon what are considered highly satisfactory terms have been made by the directors with the lessee for the purchase of the lease, the particulars of which can be ascertained on application at the company's offices. Specimens of the lodes broken at the mines by Captain William Thomas, may be seen at the company's offices.

Applications for shares to be addressed to the directors, at their offices; or to the care of Messrs. Lind and Rickard, Bank-chambers, Lothbury, brokers to the company; to Messrs. Taunton and Molyneux, stockbrokers, Liverpool; Mr. Pearson, stockbroker, Birmingham; Messrs. Hoyland and Co., stockbrokers, Manchester; or Mr. H. R. Downman, Copthall-buildings, London.

The ALLOTMENT will be COMPLETED on MONDAY, the 30th instant, and NO APPLICATIONS will be RECEIVED after SATURDAY (THIS DAY), the 28th inst.

BODMIN WHEAL MARY (COPPER MINE).—The shareholders

in this mine have RECEIVED a REPORT from Captain JOHN WEBB, the late manager of the Great Polgooth Mine, of which the following is an extract:—

"I observe to the west of the present workings more settled strata of ground, and the lodes cropped out with better gossan. It is here where the former workers raised a pretty deal of copper ore, from surface to about 15 fms. deep. The old engine-shaft is sunk to a 30 fm. level, but the power was not sufficient to raise the water. This is an object that should be tried; therefore I recommend that flat-rods be attached to the engine and clear up this old engine-shaft, where it is probable some good returns of copper will be found; but it should be done as quickly and as economically as possible. Although there has been a disappointment hitherto, it would not be satisfactory to abandon the mine before this work is done. I consider the spending £1300 will effect a satisfactory trial, and nearly half of that sum will be employed in the necessary materials, which will not be altogether lost. I think that six months will ascertain whether this part of the mine is valuable or otherwise." £5

Assurances of the probable value of this part of the property having also been received from other practical men, the following plan for raising the required capital was agreed to at a special general meeting of the adventurers, held on the 26th July.

That 2048 new shares be issued, which shall be subject to calls to the extent of 30s. per share, payable in three equal instalments, at the discretion of the committee; that the holders of these shares shall be entitled to dividends, to the amount of 30s. per share, before the holders of original shares receive any dividend or dividends; and, after that event, that the 2048 new shares shall rank with the original 1024 £10 shares.

Of these new shares 410 have been taken, and, in accordance with a resolution of the adventurers, the remaining 1682 are offered to the public on the same terms. There is an excellent 50-inch steam-engine erected on the mine, and the whole of the plant and works on surface and underground have cost the present proprietors upwards of £8000. It is seldom, therefore, that new shareholders have the opportunity of entering into an undertaking on such advantageous terms.

Applications for the shares may be made to Mr. J. H. MURCHISON, 38, Threadneedle-street, London, on or before the 30th August.

BODMIN WEST DOWNS TIN AND COPPER MINES, LANIVET, CORNWALL.—In 6144 shares.

A limited number of shares are for disposal in this mine, at £1 per share, free from further call or any liability whatsoever, to provide funds for the purchase of a steam-engine adapted for crushing the ore and raising water for dressing. £6

EXTRACT FROM REPORT OF CAPTAIN JOHN KERNICK.

I have employed two miners one day breaking tinstuff from the lode, and now beg to hand you the result. The amount of tinstuff is 3 tons 10 cwts.—produce of ore from the same, 1 qr. per ton. To prove this, I have assayed 2 ozs. of the tinstuff taken in the usual mode of sampling, and the produce was 12 grs. of tin ore, worth £60 per ton.

3 tons 10 cwts. produce 3 cwts. 14 lbs. of tin, at £60	£2 12 6
Cost of breaking, 4s.; ditto dressing, 3s. per ton, 10s. 6d.	0 14 6
Leaving profit per day on two men's work	£1 18 0

Twenty men can be employed in breaking tinstuff of this quality, which, at a profit of 19s. per day each man, for 300 working days, or one year, will give a profit of £5700.

This tinstuff was broken from the lode 5 fms. below the tin streamers' work; at this depth it increases rapidly in value, and it is proved, by the landowners' books, that the back of this lode has been profitably worked upon by the tin streamers for the last 200 years consecutively, and up to the date of a grant being obtained by the present company when their interests were purchased. It results that this mine promises dividends of 100 per cent. on the capital. [Vide report of work, cited in Mining Report.]

Applications for shares to be made to W. Garner, Esq., No. 55, Southampton-row Russell-square; Mr. Thomas Fuller, mining broker, 51, Threadneedle-street; Messrs. Brooks and Co., estate agents, 209, Piccadilly; Mr. John Kernick, Bodmin, Cornwall; and to Mr. Lelean, at the offices of the company, 76, King William-street, where prospectuses may be obtained.

CROWAN CONSOLS COPPER MINES, IN THE PARISH OF CROWAN, CORNWALL.

ON THE COST-BOOK SYSTEM.—CERTIFICATES OF TEN SHARES EACH. £4

Capital £15,000 in 5000 shares.—Deposit 20s. per share.

These MINES are situated in the parish of CROWAN, in the county of CORNWALL, and comprise three extensive setts, formerly known as Wheal Curtis, Wheal Strawberry, and Wheal Dumpling. The length of ground from east to west, on the course of the lodes, is 1½ mile, and extends half a mile from north to south, being 3½ miles distant from the Halamanning and Croft Gothal Consolidated Mines.

Crowan Consols are situate in the clay slate, between the granite of Crowan and Godolphin. This trough of slate has been, and still is, very productive of copper and tin, from Sithney on the south to Gwinear on the north. The main bunches have been found, more or less, in a south and north direction from Wheal Vor to Wheal Herland. Crowan Consols occupy the centre, and are, therefore, in an excellent position for productiveness. The lodes are parallel to the celebrated Wheal Abraham, Crenver, and Oatfield Mines, which produced immense quantities of ore, and realized large profits.

A new lode has been recently discovered, and the men are progressing in their labour for active operations.

Application for prospectuses and shares to be made to Messrs. Holderness, Fowler, and Holderness, stock and sharebrokers, 23, Change-alley, Cornhill, where plans and sections can be seen.

ALTARNUN CONSOLS TIN AND COPPER MINES, NEAR ALTARNUN, IN THE COUNTY OF CORNWALL.

ON THE COST-BOOK SYSTEM. £8

In 4000 shares, of £2 each (of which 2000 shares are for sale), deposit 10s. per share, and the remaining 30s. to be paid (if all required) in quarterly instalments of 10s. each.

At present in 1000 shares, held by 17 proprietors.

According to the cost-book of this mine nearly £6000 has been expended, including April cost, 1852, and its works have been carried on for several years by less than the above limited number of proprietors.

The leases are from William Vere Fane, Esq., the Rev. William St. Andrew Vincent, and George Giles Vincent, Esqrs., for 14 years, from the 25th December, 1847 (but renewable), at 1-15th dues.

At a general meeting of the adventurers, held on the 31st July, 1852, the following resolution was adopted:—

"That the number of shares be now increased to 4000, consisting of 1000 old and 3000 new, of which 3000 shares, 1000 shares shall be apportioned to the old adventurers according to their respective holdings, and the remaining 2000 shares disposed of at £2 per share, producing the sum of £4000 for the purchase of a steam-engine and other requisite machinery and for a working capital, and that the said capital shall be raised by a deposit of 10s. per share on allotment and by three instalments of 10s. each, payable every three months, if so much capital should be required, otherwise the amount is not to be called up."

A sett called Trewint Marsh (which has been reported to contain an excellent copper lode) has lately been added to Altarnun Consols, by purchase of Mr. Northam, of Five Lanes. It adjoins the latter sett on the west, and can be developed by means of a powerful water-wheel now in use, but which may hereafter be used as well for crushing the tin ores. The mine has yielded, so far, about £800 worth of tin ore, all produced from shallow workings, the best quality of which has been sold at £57 per ton. The richness of the Altarnun tin is proverbial, and has been so for centuries past.

The old shareholders, in introducing this adventure to public notice, feel convinced that a mining property of a more *bonâ fide* character is not to be found, but having already expended £6 per share upon it, and being few in number (seven-eighths of the mine being held, in fact, by four or five individuals), the infusion of new capital for providing an engine and suitable machinery and for the future costs is essential, and to accomplish this object they make a considerable sacrifice of their past contributions to the costs in disposing of one-half the concern at a price considerably below its estimated value.

Applications for the 2000 shares may be made to Mr. James Crofts, the secretary, at No. 4, King-street, Cheapside; or to Mr. W. H. Fox, No. 7, George-yard, Lombard-street; from whom any further explanation for the guidance and satisfaction of capitalists will be given, and specimens of the rich ore from the 20 fm. level shown.

The 10s. per share deposit will become payable on allotment of the shares; and out of the first proceeds of the sale of the new shares a steam-engine will be purchased.

4, King-street, Cheapside, July 31, 1852.

EXTRACTS FROM REPORTS BY ADAM MURRAY, F.G.S, M.R.I., &c.

Wheal Vincent (now Altarnun Consols), near Camelford, Cornwall, April 22, 1851.

The shaft is down to 6 fms. below the 10 fm. level, and is sinking by nine men, at £14 per fm.; during the last few feet, and as the shaft approaches the lode, the granite has become much easier. The western level, extending at 10 fms. below surface, is driving at £1 10s. per fm. by six men; the lode is of a variable character, and contains large courses of tin ore; this level is extended 40 fms. and the eastern one is extended 23 fms. on the course of the lode, making together 63 fms., in which are developed very important courses of tin ground, and from the backs of which about 15 tons of tin have been raised of good quality; but in naming this, it must be borne in mind that a very small portion of the backs were available, as the ground above has been twice streamed, and is now under process a third time, taking a deep surface cutting into the two parallel lodes in the valley, thereby leaving a very little ground above the 10 fm. level, which it would be dangerous to rise on; but from what we have already discovered in the 10 fathom level we may reckon on a considerable quantity of ore being raised in prosecuting the 20 and 30 fm. levels below it, and from the similarity of the second or north parallel lode and its proximity to this, we may reckon upon the same results from it. These results, of course, cannot be obtained unless a steam-engine is erected, and I would advise the speedy erection of a 40 or 50-inch steam-engine for that purpose.

Altarnun Consols, July 31, 1852.—The shaft has intersected the first great tin lode in the 20 fm. level, and from its character and bearing it is unquestionably of the same value as in the 10 fm. level, where £800 of tin ore was raised from a small portion of the backs left by the streamers. This continuity of ore in the lode happily exists under a change in the granite, of which I was apprehensive. I may now fairly infer its prolongation to various depths after this trial; and I can now, with good data to back my opinion, recommend the speedy erection of a steam-engine; and I believe the capital employed for that purpose will be shortly returned, and the mine placed in a good remunerative position.

Mr. Adam Murray has superintended the workings of the mine for nearly the last two years, and has from time to time reported to the adventurers on its highly favourable prospects, but has always contended for the application of steam-power as essential to its development.

The following are extracts from letters received from various disinterested parties at the time:—

Wheal Vincent, Feb. 4, 1852.—I beg to inform you that yesterday we cut a rich lode in the 20 fm. level; I cannot say much about its size, for we are only just got down upon the back of it; we are breaking out large stones of tin, and shall be able to send you a box of specimens of our lode in a few days, and then I will give you further particulars, which I hope will be very encouraging. Please to acquaint the adventurers of this welcome news as soon as possible. THOMAS REYNOLDS.

James Crofts, Esq.

Five Lanes, Feb. 12, 1852.—I beg to inform you that I have sent on a box of tin by coach to-day, and we are about 2 ft. in the lode, and it is very near as good, so far as we have been, as the box is, and we think that we have not got into the best part of it yet, and how large the lode is we cannot say, but we have exploring it as fast as possible. I hope I shall soon be able to inform you of the size and quality. It is my firm belief that we have got the best mine in the county. WILLIAM NORTHAM.

To W. Wiseman, Esq.

Captain James Hosking, who has much reputation as a practical miner, and who is acquainted with the district, has also made a highly favourable, but lengthy, report —which will be found in the prospectus issued from the office.

ALBION PORCELAIN AND BLEACHING CLAY COMPANY,
ST. ENODER, NEAR TRURO, CORNWALL.
In 500 shares, of £5 5s. each.
CONDUCTED ON THE COST-BOOK PRINCIPLE (without further liability)
Held under a lease of 21 years, commencing April 10, 1852.

The bed of china clay which this company is formed to work extends over more than 10 acres, and possesses many advantages of situation and facilities for carrying on the necessary operations, which greatly enhance its value. As a ready market is found for the clay, the demand far exceeding the supply, this cannot fail to prove a safe and most advantageous investment.

Applications for prospectuses and the remaining shares to be addressed either to the chairman, Chas. Hinks, Esq., 33, Essex-street, Strand, London; W. C. Morgan, Esq., St. Enoder, near Truro, Cornwall; or the purser, Mr. Thos. Lewis, mining and general sharebroker, St. George's-chambers, High-street, Birmingham, who has constantly on sale shares in various valuable and *bond fide* undertakings.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG, by their steamers, STARTING from SOUTHAMPTON on the 20th of every month, and from SUEZ on or about the 6th of the month.

An extra steamer on this line will be dispatched from SOUTHAMPTON for ALEXANDRIA on the 3d of October next, in combination with an extra steamer, to leave CALCUTTA on or about the 20th September.

BOMBAY.—The Company will book passengers throughout from SOUTHAMPTON to BOMBAY by their steamers leaving England on the 20th September—such passengers being conveyed from ADEN to BOMBAY by a steamer appointed to leave BOMBAY on the 14th July, affording, in connection with the steamer leaving CALCUTTA on the 8d July, direct conveyance for passengers, parcels, and goods, to and from BOMBAY and WESTERN INDIA.—N.B. This arrangement comes into operation every alternate month.

Passengers for Bombay can also proceed by this Company's steamers of the 29th of the month to Malta, thence to Alexandria, by Her Majesty's steamers, and from Suez by the Hon. East India Company's steamers.

MEDITERRANEAN.—MALTA: on the 20th and 29th of every month.—CONSTANTINOPLE: on the 29th of the month.—ALEXANDRIA: on the 20th of the month.—(The rates of passage money on these lines have been materially reduced.)

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

N.B.—Steam-ships of the Company now ply direct between Calcutta, Penang, Singapore, and Hong-Kong, and between Hong-Kong and Shanghae.

For further information, and tariffs of the Company's recently revised and reduced rates of passage-money and freight, and for plans of the vessels, and to secure passages, &c., apply at the Company's offices, No. 122, Leadenhall-street, London, and Oriental-place, Southampton.

STEAM TO AUSTRALIA.—Under arrangements with the MELBOURNE GOLD AND GENERAL MINING ASSOCIATION, the well-known screw-steamer, "SARAH SANDS," 1300 tons register, William C. Thompson, Commander, will LEAVE LIVERPOOL on the 14th SEPTEMBER instant, calling at QUEENSTOWN (Cove of Cork); and thence dispatched on the 18th SEPTEMBER, *via* the CAPE OF GOOD HOPE, for MELBOURNE and SYDNEY.

The character of the "Sarah Sands" has been well established for safe and expeditious voyages. Her accommodations are spacious, and most conveniently arranged for the health and comfort of the passengers. Intermediate and steerage passengers will not be taken.

RATES OF PASSAGE.—In spacious reserved state cabins, 65 guineas each berth; first cabin, 55 and 60 guineas; second cabin, 25, 30, and 35 guineas; Children under 14 years, half-price.

The particulars of reduction in charges for Shareholders and Tributors of the Melbourne Association may be had on application at the offices, or from the Agents of the Association.

RETURN TICKETS, at a reduction of 20 per cent. on the return passage.

Ordinary parcels are charged from 1s. 6d. upwards; newspapers, 3d. per lb.; and printed books, at 6d. per lb.

Further information may be obtained on application at the offices of the Association, 9, King's Arms-yard, London; to any of the Agents of the Association; or Chas. Oddie and W. C. Thompson and Co., Fenwick-chambers, Liverpool; and to
HENRY BROWNRIGG, 137, Leadenhall-street, London.

IMPROVED ROLLER BOX FOR SHIPS BLOCKS, THE BEARING OF AXLES, &c.—Amongst the novelties recently registered under the Designs Act, is one by G. Whatton, and D. Reading, blockmakers, of Chambers-street, Minories, for an IMPROVED ROLLER BOX, by which the principle of making the Bearing of Axles for Ships' Blocks or other purposes of a circle of Anti-Friction Rollers is carried out in a truly practical and compact manner. The article may be described, as far as it can without the aid of diagrams, thus—to a disc or circular flat plate with a circular orifice in the centre, and having a rim or flange around it, is fitted a circular cap, which is formed with a horizontal flange at its base, so that when these two parts are fitted together the flange of the cap may be counter sunk, as it were, into the thickness of the disc or plate, and may be firmly secured thereto by rivets or fastenings. The cap is made with a circular orifice at top, corresponding with the orifice in the disc or plate, and within the cap are the anti-friction rollers arranged in a compact circle, within which the applied axle works.

For supply, and further information, application must be made to Messrs Whatton and Reading, blockmakers, 33, Chambers-street, Minories; or to Mr. F. W. Campin, patent agent, 156, Strand, London.

SUNDERLAND DOCK COMPANY.—ENLARGEMENT OF TIME FOR INSPECTION OF PLANS, &c., FOR DOCK GATES.—Intending Contractors are hereby informed, that the PLANS and SPECIFICATION for the THREE PAIRS of DOCK GATES will continue OPEN for INSPECTION, at the Dock Office, Sunderland, until FRIDAY, the 17th September; and in London at the office of John Murray, Esq., engineer to the Company, 5, Whitehall, Westminster, from MONDAY the 20th, until WEDNESDAY, the 29th September next.

Parties are requested to forward their tenders to the Secretary, at the Dock Office, Sunderland, not later than Friday, the 1st October next, at noon.

Sunderland Dock Office, Aug. 17, 1852. By order, M. COXON, Secretary.

BRISTOL AND EXETER RAILWAY COMPANY.—At the THIRTY-SECOND HALF-YEARLY GENERAL MEETING of the proprietors of this Company, held at the White Lion Hotel, in the city of Bristol, on Thursday, the 26th of August, 1852,

JAMES W. BULLER, Esq., in the chair,

It was resolved,—

Moved by the Chairman, and seconded by Thomas J. Norris, Esq.:—

1. That the report now read, and the half-yearly statements of accounts, which have already been circulated among the proprietors, be received and adopted.

Moved by the Chairman, and seconded by John Bates, Esq.:—

2. That a dividend of 2¼ per cent. on the £2,000,000 of Consolidated Stock of this Company be declared for the half-year ended on the 30th of June, 1852, payable on and after the 11th day of September, to the proprietors who stood registered at the closing of the transfer books, on the 16th of August, 1852.

Moved by the Chairman, and seconded by T. W. Hill, Esq.:—

3. That this meeting approves of the arrangement made for resumption of the works on the Cornwall Railway (Plymouth to Falmouth), and for the conversion of the 1500 whole, and 1500 half, shares held by this Company into 4500 new shares, of £20 each.

Moved by the Chairman, and seconded by Thomas J. Norris, Esq.:—

4. That the Directors be, and they are hereby, authorised to make such preliminary arrangements as they may think necessary for promoting in Parliament a line of railway on the broad gauge through the district between the Wilts, Somerset, and Weymouth Railway, and the Bristol and Exeter Railway, and to take all proper measures, either separately, or in conjunction with other companies or parties desirous to promote such line, and that such measures be reported to a Special General Meeting of the Proprietors of this Company. JAMES W. BULLER, Chairman.

Moved by T. W. Hill, Esq., and seconded by J. J. Mogg, Esq.:—

5. That the best thanks of this meeting be given to the Directors, for their zeal and ability in conducting the affairs of this Company.

Moved by John Browne, Esq., and carried by acclamation:—

6. That the best thanks of this meeting be given to James Wentworth Buller, Esq., for his conduct in the chair. J. B. BADHAM, Secretary.

Bristol Terminus, August 26, 1852.

PERMANENT WAY AND GREAVES'S PATENT SLEEPER COMPANY.
Palatine Buildings, Victoria Station, Manchester, July 15, 1852.

This Company begs to call the attention of Railway Companies, Engineers, and Contractors, to the DECIDED ADVANTAGES which GREAVES'S SURFACE-PACKED IRON SLEEPERS POSSESS over all OTHER SYSTEMS of PERMANENT WAY.

The principal features of this invention, which have been thoroughly demonstrated in practice from the year 1847, are—

First cost £200 to £300 per mile of single line less than that of a wood road, at present prices.

Facility for packing the sleepers without opening out the road, by which a saving of 30 to 40 per cent. in the cost of maintenance is effected.

The joint chairs effectually "fish" the rails, avoid a multiplicity of parts, give a bearing under the joints of 2 feet 4 inches, and, by a simple arrangement, a worn-out or defective rail can be removed and replaced with the greatest ease.

This plan supersedes the very imperfect mode of "fishing" with two loose plates and bolts, without the expense (about £100 per mile of single line) attending that mode.

The entire absence of the harshness and rigidity peculiar to all other iron roads.

In addition to these advantages, their durability will be four times that of wood sleepers.

These patent sleepers have received the approbation of Mr. Robert Stephenson, and other eminent engineers, who have adopted them.

Estimates of cost, with all particulars, will be furnished on application to the undersigned, at the offices of the Company. DAVID DOIG, Secretary.

TO RAILWAY AND STEAM COMPANIES, ENGINEERS, MILLWRIGHTS, and OTHERS.—B. COQUATRIX'S PATENT LUBRICATOR, so highly approved of by the most eminent engineers and practical men, gives accurately a CONSTANT SUPPLY of any REQUIRED NUMBER of DROPS of OIL PER MINUTE for LUBRICATING the BEARINGS and OTHER PARTS of MARINE ENGINES, LOCOMOTIVES, and MACHINERY of every description, to be had at A. GRANARA'S, only proprietor, 15, Leicester-place, Leicester-square, and at T. TIM MARSH'S, City Exhibition, 22, Basinghall-street, London.

Price, without the boxes, 30s. per dozen.

STIRLING'S PATENT ALLOYS.—RAILWAY CARRIAGE BEARINGS, MILL-BRASSES, and all DESCRIPTIONS of CASTINGS are MANUFACTURED by ALFRED BARRETT, Bishopsgate Foundry, Skinner-street.
SOLE LICENSEE FOR LONDON.
BELLS of very superior quality (Stirling's Patent) are also SUPPLIED.

GOVERNMENT SCHOOL OF MINES, *AND OF SCIENCE APPLIED TO THE ARTS.*

Museum of Practical Geology.

The SESSION of this SCHOOL will be OPENED on WEDNESDAY, the 3d of NOVEMBER, with a LECTURE by Dr. LYON PLAYFAIR.

The following COURSES of LECTURES will be given:—

1. CHYMISTRY APPLIED TO ARTS AND AGRICULTURE—LYON PLAYFAIR, F.R.S.
2. NATURAL HISTORY APPLIED TO GEOLOGY AND THE ARTS—EDWARD FORBES, F.R.S.
3. MECHANICAL SCIENCE, WITH ITS APPLICATIONS TO MINING—ROBERT HUNT, Keeper of Mining Records.
4. METALLURGY, WITH ITS SPECIAL APPLICATIONS—JOHN PERCY, M.D., F.R.S.
5. GEOLOGY AND ITS PRACTICAL APPLICATIONS—A. C. RAMSAY, F.R.S.
6. MINING AND MINERALOGY—WARINGTON W. SMYTH, M.A., F.G.S.

The fee for matriculated students, for the course of two years, is one payment of £30, or two annual payments of £20 (this fee includes practical instruction in the field).—The fees for the laboratories are £15, for the session of five months.

One of the Duke of Cornwall's Exhibitions of £30 per annum, to be held for two years, granted by H.R.H. the Prince of Wales, will be competed for at the end of the session.

Acting Mining Agents or Managers may attend the Lectures at half the usual charges. The same rule is applied to officers in the Queen's or the Hon. East India Company's service. Tickets for separate courses are issued.

For further information apply to Mr. Trenham Reeks, Curator of the Museum, Jermyn-street, London. H. T. DE LA BECHE, Director.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The NEXT MEETING will be HELD at BELFAST, under the Presidency of Colonel EDWARD SABINE, R.A., Treasurer and Vice-President of the Royal Society, and will COMMENCE on WEDNESDAY, the 1st September.
JOHN TAYLOR, F.R.S., General Treasurer.
6, Queen-street-place, Upper Thames-street, London.

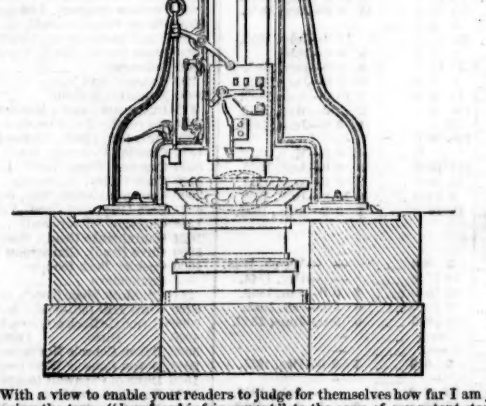
PHILLIPS'S MINERALOGY GREATLY IMPROVED.
Just published, in a thick volume, post 8vo., with numerous wood engravings, price 18s., cloth,

AN ELEMENTARY INTRODUCTION TO MINERALOGY.—By the late WILLIAM PHILLIPS, F.L.S. A New Edition, with extensive Alterations and Additions, by H. J. BROOKE, F.R.S., F.G.S.; and W. H. MILLER, M.A., F.R.S., F.G.S., Professor of Mineralogy in the University of Cambridge.
London: Longman, Brown, Green, and Longmans; Simpkin, Marshall, and Co.; F. and J. Rivington; Whittaker and Co.; Tegg and Co.; and D. Bogue.

Now ready, price 6d.

SIR JAMES BROOKE AND THE EASTERN ARCHIPELAGO COMPANY.—The FOURTH ANNUAL REPORT of the EASTERN ARCHIPELAGO COMPANY, containing a refutation of the false and calumnious charges of fraud, dishonesty, and mismanagement, brought forward against the Company by Sir James Brooke—together with an authenticated account of the arrangements with the Board of Trade, under which the certificate respecting capital was assigned by the directors.—London: Ridgway and Co., Piccadilly; and Smith, Elder, & Co., Cornhill.

NASMYTH'S PATENT STEAM-HAMMER.
TO THE EDITOR OF THE MINING JOURNAL.



SIR,—With a view to enable your readers to judge for themselves how far I am justified in using the term "barefaced infringement" to the copy of my patent steam-hammer, which Mr. Baggs has endeavoured to bring forth as "a novel contrivance" for crushing gold quartz and other obdurate ores, I send you herewith my drawing, dated April, 1847, of the application and arrangement of my patent steam-hammer to the crushing of obdurate ores—copies of which I sent in the same year to parties interested in such matters, also to several of the gold companies during the last 18 months. The first practical application I made of my steam-hammer to the crushing and pulverising of obdurate minerals was in May, 1846, when I erected one of my steam-hammers on the works of Messrs. Muspratt and Sons for crushing hard limestone, in which duty it has been in constant and most successful action ever since. Such of your readers as may feel any interest in this matter need only compare Mr. Bagg's novel apparatus, as figured in your Journal, with my design, dated 1847, or with my apparatus at Messrs. Muspratt's, erected in 1846, and so form their own opinion of this case. As to the question of the validity of my patent, I shall not fail to take the proper legal steps to set that matter right in due course. JAMES NASMYTH.
Bridgewater Foundry, Patricroft, near Manchester, Aug. 17.

THE NEW STEAM STAMPS, FOR CRUSHING GOLD QUARTZ AND METALLIC ORES—(BAGGS'S PATENT).

These powerful MACHINES are now TO BE HAD at a SHORT NOTICE, and of any number of horse-power, from four to twenty.—All communications to be addressed to Mr. ISHAM BAGGS, at the office of the *Mining Journal*, 26, Fleet-street.

The following Testimonial of the power and efficacy of these engines is from the manager of one of the smelting establishments in South Wales, where steam stamps, of moderate power, under this patent, have been for some time in operation:—

TO ISHAM BAGGS, ESQ., LONDON.

DEAR SIR,—In reply to your letter of inquiry about the action of your Patent Stamping Machine, I beg to say, that I have now had it fully at work for two months; the quantity of coarse metal it will crush with ease is about 20 tons in 10 hours—about two-thirds is crushed fine, the remainder would require to be stamped a second time, to reduce it to the same fineness. The steam used is very little, and the crushing force very great; large lumps of the metal (which is very hard) are immediately broken down—when I say large, I mean lumps as big as ordinary paving stones. I am now putting up the second machine which you sent me, and have no doubt it will give (as the first has already done) entire satisfaction. I am quite convinced that the principle is excellent, and far superior to any other mode of crushing.

I am, yours, &c., ALFRED TRUEMAN.
Spitty Copper Works, Llanelly, July 23, 1852.

The patent stamps may be used with atmospheric pressure, through the medium of a water-wheel or other prime mover. The application is extremely simple, very powerful, and where a motive-force is ready at hand, the machines cost less than when steam is employed.

CAUTION.—CERTAIN PARTIES having attempted, through the medium of the *Mining Journal*, to FOIST a barefaced INFRINGEMENT of my PATENT STEAM-HAMMER before the public, under the title of "Improved Machinery for Crushing Gold Quartz and other Metallic Ores;" this is to GIVE NOTICE, that I have instructed my solicitors, Messrs. Cunliff, Charlewood, and Bury, of Manchester, to institute LEGAL PROCEEDINGS against all such as shall, under whatsoever colourable evasion, attempt to INFRINGE my PATENT RIGHTS in the said invention. JAMES NASMYTH.
Bridgewater Foundry, Patricroft, near Manchester, August 3, 1852.

IMPROVED LIFTING JACKS,
MANUFACTURED BY
W. AND J. GALLOWAY,
PATENT RIVET WORKS,
MANCHESTER.

IMPROVED RATCHET JACK. HALEY'S PATENT LIFTING JACK.

The attention of parties who employ

Lifting Jacks,

Is respectfully requested to the superiority of those annexed, over those hitherto in use.

THE LATE AWFUL COLLIERY EXPLOSION AT ABERDARE.—The following is a LIST of SUBSCRIPTIONS already RECEIVED for the RELIEF of the TWENTY-NINE WIDOWS and SIXTY-NINE CHILDREN, who were rendered destitute by the above sad calamity:—

Thos. Powell, Esq., the Gaer	£500	0	0
Taff Vale Railway Company	100	0	0
J. Bruce Brice, Esq.	40	0	0
Sir J. J. Guest, Bart., M.P.	20	0	0
Crawshay Bailey, Esq., M.P.	20	0	0
Workmen in the employ of Thos. Powell, Esq.—1st contribution	20	0	0
Lord James Stuart	10	10	0
The Lord Bishop of Llandaff	10	0	0
The Lord Bishop of St. David's	10	0	0
Henry Austin Bruce, Esq.	10	0	0
G. R. Morgan, Esq., Gadly	10	0	0
Aberdare Iron Company	10	0	0
Werva Coal Company	10	0	0
D. Williams, Esq., Ynyscynon	10	0	0
D. Davies, Esq., Blaengwaur	10	0	0
Gadlys Iron Company	10	0	0
Aberdare Coal Company	10	0	0
G. Franklyn, Esq., M.P., Bristol	5	5	0
E. C. Downing, Esq., Cardiff	5	5	0
Geo. Lenox Conyngham, Esq	5	0	0
Nash Edwards Vaughan, Esq.	5	0	0
Drew, Heyward, & Co., London	5	0	0
H. Prichard & Co., Bristol	5	0	0
Workmen in the employ of D. Davis, Esq., Blaengwaur	5	0	0
Collected by G. L. Conyngham, Esq.	2	10	0
The Rev. J. Griffith, vicar, A.M., Aberdare	2	0	0
Proprietors of *Mining Journal*, London	3	0	0
Herbert Mackworth, Esq., Government Inspector of Mines	2	2	0
Mr. Bethuel Williams, Aberdare	2	2	0
Rev. Thos. Price, Baptist Min.	2	2	0
Mr. John Williams, Sciberwen.	2	2	0
Messrs. Noble, Cooper, & Bolton, London	2	2	0
Right Hon. John Nichol	2	2	0
Samuel Dobson, Esq., mineral Engineer, Treforest	2	2	0
Messrs. Thos. and J. W. Sully, Bridgewater	2	2	0
Proprietor of *Cumbrian* newsp.	2	2	0
Messrs. Arthur & Smith, Bristol	2	2	0
J. Rowland, Esq., Neath	2	0	0
Mr. Joseph Yeo, London	2	0	0
Mr. John Jones, Aberdare	2	0	0
Mr. Morgan Williams, Aberdare	2	0	0
D. M. Williams, Esq., Garthhall	2	0	0
Messrs. J. & A. Warren, Bristol	1	1	0
Messrs. W. & J. Warren, Bristol	1	1	0
Messrs. T. S. W. & S. Lucas, Bristol	1	1	0
Rhys H. Rhys, Esq., Llwydcoed	1	1	0
Messrs. Thomas Fripp and Thos. ——, Bristol	1	1	0
Mr. G. Watts, Gwar, Aberdare	£1	1	0
Rev. W. Bruce	1	1	0
H. J. Hollier, Esq., Aberdare	1	1	0
Mr. Gabriel Draper	1	1	0
Mr. John Roberts, Gwar	1	1	0
Mr. Shepton, Merthyr	1	1	0
Mr. Godwin, Bristol	1	1	0
Mr. Geo. Sully, Bridgewater	1	1	0
Mr. D. Davies, Abernantygwa	1	1	0
Mr. E. Thomas, Cefn Pennar	1	1	0
Mr. Philip John, Aberdare	1	1	0
Mr. R. Williams, Sunny Bank	1	1	0
Messrs. A. & W. Walker, London	1	1	0
Messrs. Huddon & Ditchett, Bris.	1	1	0
Mr. Edward Cole, Bristol	1	1	0
Geo. Smith, Esq., Aberdare	1	0	0
John Smith, Esq.	1	0	0
Mr. Thomas Evans, druggist	1	0	0
Mr. Richard Purdoe	1	0	0
Mr. Lewis Davies, Herwain	1	0	0
Wm. Chambers, Esq., Llanelly	1	0	0
Phillip Taylor, Esq., Hirwain	1	0	0
Lewis Morgan, Esq., Hafod	1	0	0
John Calvert, Esq., Gellywastod	1	0	0
David Evans, Esq., Merthyr	1	0	0
Thos. Shepherd, Esq., Navigation House	1	0	0
Mr. Williams, assist. overseer	0	10	6
Dr. Price	0	10	6
Mr. Johns, Swansea	0	10	6
Mr. Hodges	0	10	6
Mr. A. Gocon	0	10	6
Mr. George Hind, Cardiff	0	10	6
E. C. Nicholson, Esq., Aberdare	0	10	6
Messrs. J. Lewis & Co., Aberdare	0	10	0
Mr. D. David, Abernantygros	0	10	0
R. Williams, Esq., Cefn Pennar	0	10	0
Mr. T. Price, Bristol	0	10	0
Mr. J. P., London	0	10	0
Mr. John Evans, Cardiff	0	10	0
Mr. W. Todd, Aberdare	0	10	0
Mr. Lewis Lewis, Aberdare	0	10	0
Mr. Evan Thomas, ironmonger, Aberdare	0	10	0
Mr. Morgan, Aberewmboy	0	10	0
R. C. Partridge, Esq., Aberaman	0	10	0
Edward Rees, butcher	0	10	0
Mr. D. Davies, Ynyslwyd	0	10	0
Mr. S. Davis, agent, Pontypridd	0	10	0
Mr. Jabez Thomas, agent, Cymer	0	10	0
Mr. Rd. Rowland, Newbridge Colliery	0	10	0
Mr. John Watkyns, Hirwain	0	10	0
Subscriptions under 10s.	9	13	0
Sums under 10s., collected at Hirwain	0	11	0
Amount of subscriptions	£938	19	6

Further subscriptions will be thankfully received by
HENRY A. BRUCE, Esq., Treasurer.
Mr. THOMAS EVANS, Honary Secretary, Aberdare.
Messrs. WILKINS AND CO., Bankers, Merthyr.

THE WASHINGTON CHEMICAL COMPANY, NEWCASTLE-ON-TYNE;
MANUFACTURERS OF
PATTINSON'S OXICHLORIDE OF LEAD.

The WASHINGTON CHEMICAL COMPANY having, during the last year, ESTABLISHED a MANUFACTORY of PATTINSON'S OXICHLORIDE of LEAD on a large scale, and being able to supply it with regularity, and to execute ORDERS without DELAY, now proceed to bring this new and valuable preparation of lead before their friends and the public, quite sure that it will not, in the present age, be condemned because it is new, and that if judged by its merits, it must make its way, and finally take its place as one of the important manufactures of this country.

PATTINSON'S OXICHLORIDE of LEAD is a chemical combination of one equivalent of chloride of lead and one equivalent of oxide of lead; it being well known that common white lead is a chemical combination of one equivalent of oxide of lead and one equivalent (or thereabouts) of carbonic acid, constituting what is called in chemical language, carbonate of lead. Now, there is no reason to conclude that carbonate of lead is the only compound of lead valuable as a paint, and still less that it should be the best compound of lead for that purpose. In point of fact it is not so, for the newly-discovered oxichloride in most, if not in all respects, is far superior; its colour is brilliantly white, and in a number of cases it has been tried against the best white lead that could be obtained, and after a period of upwards of two years, it has been found to retain its white colour considerably better than the lead against which it was tried. But the chief and by far the most important advantage it possesses is its remarkable and very decided superiority of body, by which term the power of covering surface well and extensively is understood among painters. The attention of the discoverer was at a very early period drawn to this circumstance, and since that time the Washington Chemical Company have had abundant opportunities of placing its superiority in this important particular beyond all doubt. They have themselves performed a number of experiments, and have also caused a number of experiments to be performed, in the large way, by various practical men, to ascertain accurately its covering power as compared with the best white lead, and they now state the proportions to be as 60 to 100—that is, 60 lbs. of oxichloride paint will cover as much surface as 100 lbs. of the best white lead, the saving of cost being in the same proportion; besides this, the coating is thicker and more protective, both in and out of doors, as the oxichloride dries into a hard tenacious layer, more like an enamel than paint. In using the oxichloride, no difference in the materials with which it is mixed is required, oil and turpentine being employed as usual both for work technically called flatting and for work intended to be varnished. For the use of paper stainers and leather dressers, the oxichloride is found to be peculiarly suitable. The Washington Chemical Company strongly recommend this newly-discovered substance to the notice of consumers, both on account of its economy and its intrinsic good qualities as a paint.

AGENTS.

LONDON—Mr. Richard Cooke, 7, Size-lane.
Messrs. Blundell, Spence, and Co., 9, Upper Thames-street.
LIVERPOOL—Messrs. Johnson and McGowan.
MANCHESTER—Mr. James Douglas.
LEEDS—Messrs. T. and E. G. Jepson.
SUNDERLAND—Mr. John Young.
DEVONSHIRE AND CORNWALL—Mr. Richd. Penrose, Tavistock & Plymouth.
EDINBURGH AND EAST COAST OF SCOTLAND—Mr. William Bayley, jun., Greenside-place, Edinburgh.
GLASGOW AND WEST COAST OF SCOTLAND—Mr. John Slimshaw, Glasgow.
DUBLIN AND SOUTH OF IRELAND—Mr. P. Linskey, No. 91 Middle Abbey-street, Dublin.
BELFAST—Messrs. William Stevenson, jun., and Co.

PROFESSOR LIEBIG ON ALLSOPP'S PALE ALE.—FROM BARON LIEBIG TO MR. ALLSOPP.

Giessin, May 6, 1852.—The specimens of your pale ale, sent to me, afforded me another opportunity of confirming its valuable qualities. I am myself an admirer of this beverage, and my own experience enables me to recommend it, in accordance with the opinion of the most eminent English physicians, as a very agreeable and efficient tonic, and as a general beverage both for the invalid and the robust. JUSTUS LIEBIG.

That the public might form a correct judgment of the intention of that eminent authority, Messrs. ALLSOPP and SONS have re-published BARON LIEBIG'S LETTER to Mr. ALLSOPP *in extenso*, in all the London daily journals, as well as in other papers; copies of which letter, and of the very numerous and continually-increasing professional testimonials in favour of their PALE and BITTER ALE, may be obtained on application at the Brewery, Burton-on-Trent; or at their establishments in London, Liverpool, Manchester, Dudley, Glasgow, Dublin, Birmingham, and elsewhere.

BARON LIEBIG'S OPINION of "PALE ALE."—The prominence given to the name of Baron Liebig in placards and advertisements will have created the impression that he coveted a celebrity inconsistent with the dignity of his station in the scientific world. Having learned that he had attained such undesirable notoriety, Baron Liebig has requested the publication of the following letter, with the view of informing the public of the motives which dictated his communication to Mr. Allsopp:—

"The question of adulteration by strychnine, which has been taken up seriously in England, seemed to me of great importance, and I thought to do some good by aiding to demonstrate the error. If I wished to associate with any individual brewery my remarks on the alleged adulteration of bitter beer with strychnine, it would have been natural to have mentioned another brewery, in which alone, and not in Mr. Allsopp's, I was engaged in investigating the Burton mode of brewing; and it was also in that other brewery the Bavarian brewers acquired all the instruction they obtained at Burton. The admiration I expressed of this beverage in my letter to Mr. Allsopp is advertised in such a manner as to lead to the inference that my praise was exclusively confined to Mr. Allsopp's beer. This was not the case; my remarks referred to that class of beer. JUSTUS LIEBIG."

"Giessen, July 24, 1852."

ANOTHER CURE OF FOUR YEARS' ASTHMA BY Dr. LOCOCK'S PULMONIC WBFERS.—MATILDA SHAW, of Harrington, has been severely afflicted with Asthma for four years, so that she could only lie in one position in bed; after taking three boxes of Dr. Locock's Wafers, she is so far cured as to be able to lie in any posture, without pain or inconvenience, and can walk any reasonable pace or distance, and carry a load into the bargain. Her testimony is, that for the relief and cure of asthma the wafers are invaluable. Witness: E. SQUIER, bookseller, Louth, Feb. 28, 1852.—To singers and public speakers they are invaluable, for clearing and strengthening the voice.—Price 1s. 1½, 2s. 9d., and 11s. per box. Sold by all druggists.—Also, Dr. LOCOCK'S FEMALE WAFERS, the best medicine for females; they have a pleasant taste.

GREGORY'S HOTEL, No. 29, CHEAPSIDE, LONDON.—Bed, 1s. 6d.; Breakfast, 1s. 6d.; Servants, 9d. per day. Omnibuses to and from all the Railway Stations set down at the door.—Gentlemen connected with the MINING INTEREST are particularly invited to patronise this Hotel.
WELLINGTON GREGORY, Proprietor.

ED. J. DENT has REMOVED from 82 to 61, Strand (being 21 doors nearer to Charing-cross, and directly opposite Bedford-street), and solicits an INSPECTION of his extensive STOCK of CHRONOMETERS, WATCHES, and CLOCKS, as above; also at No. 33, COCKSPUR-STREET, and No. 34, ROYAL EXCHANGE (Clock Tower area).

THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5120	Alfred Consols (copper), Phillack	£3	£14¼	14 14¼	£4 14 0	£0 12 0—July, 1852.
1248	Allt-y-crib (silver-lead), Talybont, Wales	3	3	3 3⅛	0 7 6	0 5 0—Jan. 1851.
2000	Anglesea Coal Company	4	4½		0 8 0	0 8 0—Jan. 1852.
1624	Balleswidden (tin), St. Just	11¼	10		9 19 0	0 5 0—July, 1852.
4000	Bedford United (copper), Tavistock	2¾	6¾	7 ex div.	3 13 0	0 5 0—Aug., 1852.
5000	Black Craig (lead), Kirkcudbrightshire	5	1⅜		0 2 6	0 2 6—Nov. 1851.
64	Boscaswell Downs (tin), St. Just	—	100		750 0 0	— —May, 1849.
100	Botallack (tin, copper), St. Just	182½	265		462 10 0	5 0 0—Aug., 1852.
1000	Bryntail, Llanidloes, Montgomeryshire	3½	10½		0 5 0	0 5 0—June, 1851.
5000	Callington (lead, copper), Callington	6¼	1¼		6 0 0	1 0 0—Sept. 1847.
1000	Carn Brea (copper, tin), Illogan	15	70		210 0 0	2 0 0—July, 1852.
128	Comford (copper), Gwennap, Cornwall	75	12		—	—
256	Condurrow (copper, tin), Camborne	20	105		19 0 0	2 0 0—Aug, 1852.
2510	Cook's Kitchen (copper, tin), Illogan	15⅛	2½		—	—
128	Cwmystwith (lead), Cardiganshire	60	190		10 0 0	5 0 0—July, 1852.
1024	Devon Great Consols (copper), Tavistock	1	375		277 0 0	7 0 0—July, 1852.
672	Ding-Dong (tin), Gulval	5	6		55 0 0	— —1850.
180	Dolcoath (copper, tin), Camborne	252	20		855 14 0	— —1847.
2560	Drake Walls (tin, copper), Calstock	6½	6¾		0 5 0	— —Jan. 1852.
300	East Daren (lead), Cardiganshire	19	75		2 0 0	2 0 0—July, 1852.
128	East Pool (tin, copper), Pool, Illogan	24¼	150		233 0 0	— —1843.
94	East Wheal Crofty (copper), Illogan	125	50		242 10 0	—
128	East Wheal Rose (silver-lead), Newlyn	50	290		2245 0 0	10 0 0—March, 1852.
3000	Fenton Pottery Coal and Iron	6	9		1 4 0	0 12 0—Aug. 1852.
494	Fowey Consols (copper), Tywardreath	40	30		—	—
3715	General Mining Co. for Ireland (cop., lead)	1⅝	3⅛		0 15 9	0 7 10—June, 1852.
2000	Goginan (lead), Cardiganshire, Wales	8	8		22 0 0	— —
96	Great Consols (copper), Gwennap	1000	200		353 6 8	— —Jan. 1851.
50000	Great Onslow Consols, Camelford	1⅛	2⅛		0 2 0	0 2 0—June, 1852.
13750	Great Polgooth (tin), St. Austell	3	4¼		0 6 0	0 4 0—May, 1852.
119	Great Work (tin), Germoe	100	200		127 0 0	7 0 0—Feb. 1852.
1024	Herodsfoot (lead), near Liskeard	8½	4		0 7 6	0 2 6—Aug. 1851.
1000	Holmbush (lead, copper), Callington	24	18		25 0 0	— —Feb. 1844.
2000	Holyford (copper), near Tipperary	11	7		3 0 0	3 0 0—1847.
786	Kirkcudbrightshire (lead), Kirkcudbright	9⅜	4		0 5 0	0 5 0—Sept. 1851.
1000	Lewis (tin, copper), St. Erth	17	13		2 0 0	0 10 0—Aug. 1851.
160	Levant (copper, tin), St. Just	2½	95		1036 0 0	2 0 0—Feb. 1852.
100	Lisburne (lead), Cardiganshire, Wales	75	650		670 0 0	15 0 0—April, 1852.
5000	Low's Patent Copper Smelting Company	9	10		1 0 6	0 4 6—July, 1852.
5000	Merllyn (lead), Flint	2¾	6⅛	6 6½	0 18 0	0 5 0—Aug., 1852.
20000	Mining Co. of Ireland (copper, lead, coal)	7	10	9¾ ⅞ 10	7 14 0	0 3 6—June, 1852.
200	North Pool (copper, tin), Pool	22½	210	220	239 0 0	5 0 0—April, 1852.
140	North Roskear (copper), Camborne	10	180		235 0 0	4 0 0—Jan. 1852.
6000	North Wheal Basset (copper, tin), Illogan	—	10		1 1 0	— —April, 1851.
6400	Par Consols (copper), St. Blazey	1⅛	17½		21 5 0	0 16 0—June, 1852.
1160	Perran St. George (cop., tin), Perranzabuloe	21½	40		1 15 0	0 10 0—June, 1851.
200	Phœnix (copper, tin), Linkinghorne	30	240		125 0 0	15 0 0—July, 1852.
560	Providence Mines (tin), Uny Lelant	20⅝	22½		18 14 6	0 10 0—Nov. 1851.
256	South Caradon (copper), St. Cleer	2½	140		260 0 0	2 10 0—Nov. 1851.
9000	South Tamar (silver-lead), Beerferris	1⅜	5½	5⅛	0 5 0	0 5 0—June, 1852.
256	South Tolgus (copper), Redruth, Cornwall	16	190		46 0 0	4 0 0—Aug., 1852.
248	South Wheal Frances (copper), Illogan	80	142	165	123 15 0	4 0 0—July, 1852.
1024	Spearne Consols (tin), St. Just, Cornwall	1¼	8¾		4 10 0	0 10 0—March, 1851.
1024	St. Aubyn and Grylls (copper, tin), Breage	3	8		0 17 6	0 7 6—April, 1852.
94	St. Ives Consols (tin), St. Ives	80	125		871 0 0	7 0 0—June, 1852.
1000	Stray Park and Camborne Vean (copper)	16	9		11 10 0	—
9600	Tamar Consols (silver-lead), Beeralston	4½	4¼		2 11 0	0 6 0—July, 1849.
6000	Tincroft (copper, tin), near Pool, Illogan	7	13⅞		6 8 0	0 10 6—Aug. 1852.
512	Trehane (silver-lead), Menheniot	⅝	5		14 7 6	0 10 0—Nov. 1851.
5000	Treleigh Consols (copper), Redruth	6	2¾		1 3 0	0 5 0—Oct. 1847.
96	Tresaven (copper), Gwennap, Cornwall	32½	134		4680 15 0	— —1848.
120	Trethellan (copper), Gwennap, Cornwall	5	15		402 10 0	— —April, 1851.
120	Treviskey and Barrier (copper), Gwennap	130	140		284 0 0	6 15 0—July, 1852.
100	Trumpet Consols (tin), near Helston	95	130		15 0 0	5 0 0—May, 1852.
200	United Mines (copper), Gwennap	80	850	850	2 10 0	2 10 0—Sept. 1851.
1024	Wellington (copper, tin), Perranuthnoe	7¾	6¾		2 2 6	0 5 0—March, 1851.
256	West Caradon (copper), Liskeard	20	165		177 5 0	4 0 0—April, 1852.
1024	West Providence (tin), St. Erth	5	48½	48½ 50	10 10 0	2 10 0—May, 1852.
256	Wheal Basset (copper), Illogan	10¼	530	525 530	315 0 0	15 0 0—Aug. 1852.
256	Wheal Brewer (copper), Gwennap	4	22½	22 29	5 0 0	—
256	Wheal Buller (copper), Redruth	5	750		182 10 0	17 10 0—July, 1852.
100	Wheal Friendly (tin), St. Agnes	70	31		5 0 0	5 0 0—1850.
128	Wheal Friendship (copper), Devon	120	125		2339 10 0	8 0 0—Feb. 1852.
5000	Wheal Golden (sil.-lead), Perranzabuloe	3	5¼		1 0 0	0 5 0—July 1851.
430	Wheal Lovel (tin), Helston	33	50		15 0 0	2 10 0—Aug. 1852.
112	Wheal Margaret (tin), Uny Lelant	79	117		196 0 0	2 10 0—May, 1852.
512	Wheal Mary Ann (lead), Menheniot	5¼	36		22 5 0	1 0 0—June, 1852.
40	Wheal Owles, St. Just, Cornwall	140	250		120 0 0	—
240	Wheal Reeth (tin), Uny Lelant	20½	62	60	37 10 0	4 0 0—May, 1852.
198	Wheal Seton (tin, copper), Camborne	107	180		218 10 0	5 0 0—Aug. 1852.
520	Wheal Trelawny (silver-lead), Liskeard	8⅜	35		26 10 0	2 0 0—May, 1851.
1024	Wheal Tremayne (tin, copper), Gwinear	9⅜	21½	24½ 25	8 15 0	0 10 0—July, 1852.
5000	Wicklow (copper), Wicklow	5	36½		18 13 0	1 5 0—Aug., 1852.

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5000	Alten Mining Company (copper), Norway	£14½	2½		3 0 0	— —March, 1848.
10000	Brazilian Imperial (gold), Brazil	25	3¼	3¾ ⅞	34 17 6	— —Dec. 1844.
12000	Cobre Copper Company (copper), Cuba	40	40	41 41¾	51 10 0	2 0 0—Jan. 1852.
10000	Copiapo Mining Company (copper), Chili	14	5¾		3 18 0	0 5 0—Oct. 1851.
20000	General Min. Assoc. (iron, coal), Nova Scotia	20	10	10½	7 10 0	0 5 0—June, 1852.
9000	Linares (lead), Pozo Ancho, Spain	3	2¼		—	—
100000	Mariquita Min. Co. (gold, sil.), New Granada	1	1⅝		—	—
2700	Marmato (gold), Columbia	2½	12		3 0 0	1 0 0—Dec. 1851.
20000	Mexican and South American (cop.), Mexico	4⅞	4⅞		—	—
7000	Royal Santiago (copper), Cuba	12	13		33 4 0	— —July, 1846.
11000	St. John del Rey (gold), Brazil	15	27¾	27⅞ 28	17 17 6	2 0 0—June, 1852.
43174	United Mexican (silver), Mexico ....Av.	28¼	2¾	2½ 2¾	1 12 6	0 7 6—Feb. 1850.

MINES WHICH HAVE SOLD ORES.

Shares.	Mines.	Paid.	Last Price.	Present.
4000	Altarnun Con. (tin, cop.), Altar.	⅛	⅛	
4000	Augusta Con. (cop.) Bridestowe	1	1⅛	1
940	Balnoon Con. (tin), Uny Lelant	—	3	
1024	Balleswidden (tin), Sancreed	3½	1	
508	Bell and Lanarth, Gwennap	8¾	4¼	
8000	Blaenavon (iron), South Wales	50	10	
3000	Bishopstone, Glamorganshire	4	4	
1024	Bodmin Con. (lead), Wadebridge	9	6	
6144	Bodmin West Downs (tin, cop.)	1	1	
1024	Bodmin W. Mary (cop.), Bodmin	10¾	8	
1024	Boringdon Park, Plympton	4¼	6	
240	Boscean (tin), St. Just	19	16	
2400	Bosorn (tin), St. Just	1	1	1
5250	Bottle Hill (copper), Plympton	2	2	1¾
14000	Braich Goch Slate Quarries	⅛	⅛	
2000	Bronfloyd (lead), Wales	1⅛	⅛	
2300	Bryn-Arian (lead), Cardigansh.	3	¾	
—	Budnick Consols (tin), Perran	6½	6½	6¾
7500	Busparvo (tin, cop.), Gwinear	1	1	
2000	Bwlch (sil.-lead), Cardiganshire	4	4	
1000	Cae-Gynon, Cardiganshire	1	2	
4090	Calstock Consols (copper)	4⅛	1½	
2000	Carbona (tin, copper), Crowan	4½	4	
3000	Carthew (cop., lead), Wadebridge	6⅛	4	
1056	Carvannall (copper), Gwennap	4⅜	5⅛	5
2048	Castle Dinas (tin), St Colomb	1¾	2	
200	Cefn Bruno (lead), Cardigansh.	21	55	
9000	Charlestown United, Cornwall	⅝	3	
1024	Chyprase (tin, cop.), St. Enodor	5¼	9½	9 ½ ¾
1024	Clijah & Wentworth (tin, cop.)	4	5	
2000	Coed Mawr Pool (lead), Llanrwst	10	15	
1000	Copper Bottom (cop.), Crowan	10	5	
900	Court Grange, Cardiganshire	10	10	
1600	Craig-y-Mwyn (lead), Llanrhiadr	8⅜	9	
256	Crane and Bejawsa, Camborne	25½	19	
128	Creeg Braws (copper), Cornwall	52½	50	
9000	Cubert (silver-lead), Cornwall	1⅛	1	
10000	Cwm Daren (lead), Cardigansh.	¼	1	
1000	Cwm Erfin (lead), Cardigansh.	8	2	
2000	Cyfannedd Fawr, Lanegryn	¼	1	
3000	Dalrhiew (cop., lead), Brecon	1½	4	4 5
1000	Daren (sil.-lead), Cardiganshire	4	3	4
7100	Derwent (sil.-lead), Durham	10	2	
2907	Devon and Courtenay (copper)	3	1¼	
1024	Devon and Cornw. United (cop.)	7⅛	6	
1600	Devon Great Tincroft (tin)	¾	2	
4000	Dolfrwynog (cop.), Merioneth	¼	1	
128	Drift Moor (tin), Sancreed	4	4	
2000	Dyfngwm (lead), Wales	11½	12	
1024	East Alfred Consols (lead, cop.)	2¾	4	4
256	East Basset (copper), Redruth	18	14	
2500	East Birch Tor (tin), North Bovey	3	3	
2048	East Boringdon Park, Plympton	1⅝	2⅝	
1948	East Crowndale (cop.), Tavistock	6	3	
1100	East Frongoch (lead)	1¼	4	
4000	East Gunnis Lake Junc. (cop.)	1⅝	⅝	
512	East Seton & W. Maude, Redruth	9¼	6	
9000	East Tamar (sil.-lead), Beerferris	1⅜	1¼	1¼
256	East Tolgus (copper), Redruth	10	20	35
2048	East Wheal George, Walkhamp.	1½	4½	
512	East Wheal Leisure, Perran	15	8	
1024	East Wheal Margaret (tin, cop.)	3⅛	2	
564	Ecton Mountain (paid-up)	10	12	
536	Ecton Mountain (lead, copper)	2½	—	
1280	Egair Lee Llanfihangel-y-Croy.	6¾	3	
12000	Gallt-y-Maen, Merioneth	2	2⅝	
5000	Garreg (lead), Flint	1¾	1	1¼
2500	Georgia Consols (tin), St. Ives	5⅛	6	
256	Gonamena (copper), St. Cleer	49	12	
248	Grambler & St. Aubyn (copper)	88¼	19	
800	Great Beam (tin), St. Austell	18¾	27¼	
4026	Great Cowarch, Merioneth	2¾	1⅝	
1024	Great Wheal Alfred, Phillack	17⅝	28	
5120	Great Wheal Baddern (tin)	2⅛	2⅝	2½ 3
1024	Great Wheal Leisure	2⅝	1	¼
5000	Great Wheal Martha (copper)	—	1⅛	
1026	Gustavus Mines, Camborne	7⅝	2	
512	Halamanning and Croft Gothal	67½	80	
512	Hawke's Point, Uny Lelant	8¼	5	
6000	Hingston Down Cons. (copper)	2¾	5	4½
20000	Kenmare and West of Ireland	1	2¼	
873	Keswick (lead), Portinscale	16	4	
3300	Kilbricken (silver-lead), Clare	3⅝	4¾	4
1074	Kingsett and Bedford (lead, cop.)	5¼	½	
1742	Lamherooe Wheal Maria (cop.)	15	3	
3000	Lambo Con. (cop., tin), Gwinear	1½	1½	
252	Lanarth Con. (cop.), Gwennap	4	4	
256	Leeds and St. Aubyn (tin, cop.)	—	2½	
256	Lelant Consols (tin), Uny Lelant	64	16	17½
13000	Llynmalees (lead), Cardigansh.	1⅛	½	
6000	Marke Valley (copper), Caradon	10	1½	
5000	Mendip Hills (lead), near Bristol	3¾	1¼	
1024	Mill Pool (tin, cop.), St. Hilary	4½	4	
2000	Molland (copper)	3½	4	
4500	Mount Tiack (tin, cop.), Lelant	1	2	
320	Nansegollan, Camborne	13	12	
3000	Nant-y-Car (cop.), nr. Rhayader	2¾	6	7 8
1024	North Buller (copper), Redruth	7⅞	7	
2000	North Downs (copper), Redruth	½	2⅞	3½ 4
2500	North Frances (cop.), Camborne	½	2	
2000	North Levant (tin, cop.) St. Just	1¼	2	
2000	North Tamar (silver-lead, cop.)	2	2	2
1200	N. W. Buller or Gt. South Tolgus	6½	6	7½
2000	Ockment (cop., sil.-lead), Devon	1¾	2	1¾ 2
2048	Okel Tor (lead), Calstock	¾	½	
256	Old Wheal Basset, Illogan	2	2	
2500	Orsedd (lead), Flint	1	2	
10240	Pembroke & East Crinnis (cop.)	2½	3½	
1500	Pencraig (lead), Carnarvon	4	4	
5000	Pendarves & St. Aubyn (tin, co.)	1	1	
1026	Pendarves Consols, Camborne	1⅝	2	
2048	Pentire Glaze (silver-lead)	5¼	8	
1024	Penzance Con. (tin), Sancreed	3⅛	1	
1000	Peter Tavy & Mary Tavy (cop.)	5	5	3½ 4
1000	Polberro (tin), St. Agnes	15	13	
2000	Polgear & Lancarrow (cop., tin)	1	1½	
3000	Porkellis United (tin), Wendron	10	12	
1024	Praed Con. (tin), Towednack	1¼	⅝	
6400	Prideaux Wood, Luxillyan	1⅛	2	
2048	Prince Albert, Perranzabuloe	2	3	4
7000	Reeth Consolidated, Towednack	4⅝	⅝	
2500	Rhoswydol & Bacheiddon (lead)	11¼	16	
1948	Rix Hill (tin), Tavistock	3½	3	
5000	Rocks and Treverbyn (tin)	4½	4	
256	Rosewarne (cop., tin), Gwinear	3¾	4	
2048	Runnaford Coombe (tin)	3¼	1	
1024	Sidney Godolphin (cop.), Breage	5	6	
6200	Silver Valley and Wh. Brothers	1	⅝	
2000	South Carn Brea (cop.), Illogan	10½	6	6
256	South Charlotte, St. Agnes	3	6	6½
256	South Friendship Wheal Ann	30	28	
2000	South of Scotland	1⅝	1	
300	South Speed, Uny Lelant	25	30	
256	South Wheal Josiah, Calstock	2	¼	
280	Spearne Moor (copper), St. Just	30	40	
999	St. Minver Consols (silver-lead)	1	2	
4944	Tavy Con. (cop.), near Tavistock	1¼	5¼	5½
1000	Tokenbury Con. (cop.), St. Ives	3¼	2	
1024	Trannack and Bosence, St. Erth	4½	4	
1024	Trannack United Mines (tin, co.)	1½	3	
1024	Trebarvah, Perranuthnoe	1¼	5	
168	Tregorden, Wadebridge	22	5	
2048	Trebell Con. (tin, cop.), Lanivet	1¼	1¼	
1000	Treloweth (copper), St. Erth	6¾	6¾	
572	Trelyon Consols, (tin), St. Ives	4¾	8	
2048	Trevelyan (tin, copper)	2¾	4	4½
4000	Tyn-y-Worglod (slate), Carnar.	4	4	
1024	United Mines (cop., tin), Tavis.	12½	10	
20000	Vale of Towy (lead)	¼	1⅛	
5000	Warleggan Consols (copper)	1	⅜	
1024	West Alfred (cop.), Phillack	12¾	26	
6000	West Basset (copper), Illogan	1⅜	7	
256	West Damsel (cop.), Gwennap	5¾	70	
1024	West Ding-Dong (tin), Sancreed	2½	6	
6400	West Fowey Con. (tin, copper)	3⅛	7	
2048	West Goginan, Cardiganshire	3⅝	1½	
1024	West Par Con. (cop.), St. Blazey	10	10	
6500	West Polgooth (tin), St. Ewe	1⅛	⅞	¾
200	West Seton (copper), Camborne	75	120	
940	West Tolgus (copper), Illogan	14½	¾	
120	West Trethellan, Gwennap	15	12½	
4096	West Wheal Edward, Calstock	—	¾	
512	West Wheal Frances, Illogan	10½	9	
500	West Wheal Towan (cop., tin.)	29½	14	
1024	West Wheal Treasury (cop.)	8	8	
2140	Wheal Adams (lead), Christow	4	7	7 8
1000	Wheal Agar (copper), Illogan	6	5	
5000	West Wheal Alfred (cop.), Hayle	1¾	5¼	
6400	Wheal Anna (tin), St. Austell	1	2	
1228	Wheal Arthur (silver-lead, cop.)	5	23	22½
3072	Wheal Augusta (tin), St. Just	1	1	1 1¼
240	Wheal Bal (tin), St. Just	5½	6	
—	Wheal Clifford (cop.), Gwennap	—	200	300
1024	Wheal Crebor (cop.), Tavistock	6¼	17½	
1024	Wheal Chiverton (copper, tin)	4¾	4½	
4500	Wheal Elizabeth (tin), St. Ewe	½	¾	¾
182	Wheal Ennis (lead), St. Erme	17	14	
1070	Wheal Enys (tin), Wendron	4½	5	
2140	Wheal Exmouth (lead), Christow	4½	9	9 11
764	Wheal Franco, near Tavistock	14½	4	
—	Wheal Grenville, Camborne	3	3	
10000	Wheal Guskus (tin, copper)	¼	½	
5120	Wheal Harriett, Camborne	⅜	1½	1¼
256	Wheal Kitty (tin), Uny Lelant	65	15	
6000	Wheal Langford (cop., sil.-lead)	⅝	1⅜	1¼
1000	Wheal Lemon (copper), Germoe	5⅜	5	
1024	Wheal Mary Emma (tin, lead)	3½	3	
1024	Wheal Mary Emma East, Tavis.	1½	2	
942	Wheal May (silver-lead, cop.)	4	3	
256	Wheal Music (copper), St. Agnes	1	1	
808	Wheal Oak (tin), near Helston	2¼	1¼	
3000	Wheal Penhale (lead, copper)	3	3	
128	Wheal Plenty (copper), Redruth	29	25	
256	Wheal Prudence (cop.), St. Agnes	4⅜	4	
4000	Wh. Robert, Sampford Spiney	¼	¼	¾ 1¼
4000	Wheal Russell (cop.), Tavistock	2⅛	1⅞	1
5000	Wheal Ruth (tin), Shepstor	2	2	
512	Wheal Sophia (sil.-lead), Lezant	9¾	10	
1024	Wheal Speedwell (copper, tin)	5¾	7½	
1024	Wheal Squire (copper), St. Erth	4⅞	2	
247	Wheal Stanley (tin)	1¾	1½	
1000	Wheal Susan, Breage & Crowan	2¾	1	
6000	Wheal Tehidy (copper), Illogan	1½	1½	2 3
2000	Wheal Tom, Stoke Climsland	6½	6½	
4000	Wheal Treasury (copper, tin)	⅝	½	½
512	Wheal Trefusis (cop.), Gwennap	12¼	20	13 14
3000	Wheal Trevena (tin), Breage	2¼	8	
8448	Wheal Trewane (silver-lead)	1¼	2	2¾
267	Wheal Tryphena, Camborne	42	18	
126	Wheal Union (copper), Redruth	48	10	
6000	Wheal Unity (cop., tin), Gwinear	2¼	3	
1024	Wheal Uny (tin, cop.), Redruth	6¾	9	
1024	Wheal Venton (sil.-lead), Lisk.	6½	4½	
4000	Wheal Williams (copper)	⅞	¾	¾
4096	Wheal Zion (cop., lead), Tavist.	1⅝	4	4½ 4¾
2048	Wood Mine (sil.-lead), Beerferris	⅞	1	
2048	Yeoland Consols (tin), Plymouth	5½	6	

MINES WHICH HAVE NOT SOLD ORES.

Shares.	Mines.	Paid.	Last Price.	Present.
2049	Anna Maria (sil.-lead), Caradon	⅝	1	
1024	Appledore (sil.-lead, cop.) St. Ives	4½	2¾	3½
3000	Beacon (tin), Roche, Cornwall	¼	¾	⅝
256	Berriow (copper), Liskeard	3	1½	
8000	Bicton Consols (lead), St. Ives	1	1	
32	Black Burn, Alston, Cumberland	20	100	
360	Blaen Caylen (lead), Cardigan	1¼	2½	
6000	Bolenowe	½	4½	
120	Bolowall and Nanpean (tin)	20	18	
20000	Boscarne, Bodmin	3	3	
812	Butterdon (lead), Menheniot	4½	4½	
1024	Caerphilly & Carfnnon, S. Wales	3	—	
3000	Cally (cop., lead), Kirkcudbright	1	1¼	
1536	Caradon Vale (cop., lead), St. Ive	3⅜	1	
6000	Caradon Wood (lead), Linking.	¾	⅛	
5120	Carn Valley, St. Dennis	1	⅞	
2000	Cassandra Anne (lead, copper)	5	5	
4527	Cefn Gwyn (sil.-lead), Cardigan	1⅛	½	
1248	Christow (silver-lead)	2⅛	8	8 10
1024	Churchstoke (lead), Salop	⅞	2	
5000	Clive (lead), Glamorgan	1¼	6	5½
1000	Cockley Beck (copper)	⅞	2	
—	Connemara	1	1¾	
211	Craddock Moor (cop.), St Cleer	33	8	
6400	Crow Hill (sil.-lead), St. Steph.	1	1½	
6000*	Cwmdyle Rock & Green Lake	3	5	5
4000	Ditto Ditto	1	3	3
5000	Devon Consols North (copper)	2⅛	1⅞	
2048	Devon Consols West (copper)	1⅞	1	1⅝
1536	Duke of Cornwall (copper)	3	4	
1024	East Balleswidden, Sancreed	2⅝	1	
128	East Carn Brea (cop.), Redruth	4	2½	
5000	East Black Craig, Kirkcudbright	⅛	¼	
1024	East Buller (cop.), near Redruth	4	4	
6000	East Kitt Hill (cop., tin), Cornw.	1	1	1½
10000	East Polgooth (tin), St. Austell	2	2	
128	East Tremayne (tin), Gwinear	5	8	12
1000	East Trescoll	1	1	
1024	East Wheal Fortune, St. Hilary	2	2	
2048	East Wheal Josiah, Tavistock	1⅝	¾	
1000	East Wheal Reeth, St. Ives	3⅜	1¼	1½ 2
4000	East Wheal Russell, Tavistock	1½	3	4¼ 4½
10000	East Wheal Vor (tin), Helston	1l 1s	1l 1s	1l 1s
1024	Exmoor Eliza (cop.), S. Molton	4⅞	10	
1024	Freidd Llwyd Mines, Wales	1¼	3	
1590	Gaverigan (tin), St. Colomb	4	—	
4000	Gawton United	—	1⅛	1⅛
1000	Gellirheivin (sil.-lead), Cardigan	1	5	
24000	Glenaulin & Carivilleen (copper)	⅛	⅞ 1	
256	Glynn Wh. Mary, Cardingham	1½	1½	
6500	Great Bryn Consols (cop., tin)	1	1½	2 2½
512	Great Rough Tor (cop.), Cornw.	34	15	
1024	Great Sheba Consols (tin, cop.)	11⅛	4½	
5000	Great Wheal Agar (tin, copper)	1	1	
6000	Great Wheal Tonkin (copper)	1	1	
32	Helvellin, Westmoreland	25	25	
1500	Hennock (silver-lead) Hennock	5	10½	
10000	Hibernian (copper), Ireland	12¼	¼ ⅜	
4090	Inney Consols	1	1	
1024	Lantallack (sil.-lead), Landrake	⅛	2	
12000	Leeds Town (tin, cop.), Crowan	2½	3¼	
5056	Lydford Consols (lead)	1	⅝	
512	Melin Llyn Pair, Merioneth	4½	10	
160	Morvah Consols (tin, copper)	2	1¼	
5000	New Cop. Bottom, Bridestowe	1¼	1¾	
2048	New East Crowndale (cop., tin)	2½	1¼	
256	North Crenver (copper)	9	9	
256	North Fowey (cop.), Tywardreath	4¾	6	
1024	North Wh. Robert, Walkampton	4⅛	4	
1060	North Wheal Trelawny (lead)	1	3¼	3¼
406	Penhauger (lead), Menheniot	2	2¼	
700	Pen-y-bank & Erglodd (lead)	4½	4	
5000	Perran Con. (cop.), Perr. Uthnoe	2	2½	2½ 4
4000	Perran Wheal Jane (tin, copper)	¼	⅝	
5000	Penhale Consols (silver-lead)	3	—	
480	Raleigh, (tin, copper), Crowan	4¼	4¾	
2500	Ringabella (sil.-lead), nr. Cork	4	5	
4094	Sourton Con. (copper), Sourton	⅝	1¼	
6144	South Phœnix	⅞	2⅞	
974	South Plain Wood, Ashburton	6	6	
1024	South Tresavean (tin, copper)	1⅛	2	
2000	South Wales Mining Co. (lead)	1¾	2	
4000	South Wheal Russell	⅞	1⅛	
1200	Swanpool, Budock	3	4	
5000	Temple Con. (tin, cop.), Cornw.	2	4	
600	Tregardock (lead), St. Teath	3¾	12	13
833	Tremar (copper), Liskeard	5	2⅛	
2000	Tremollett Down, Stoke Clims.	½	½	½ ¾
6000	Trenault (lime quarries)	1	1⅛	
1024	Trethevy (copper), St. Cleer	7½	3½	
4096	Trevallick (silv.-lead), Liskeard	6d	⅛	
5120	Treworlis and Trenethick (tin)	¼	¾	
15000	Ty-Mawr (slate), Llanlbyful	1	1¼	
10000	Tyn-yr-beth (slate)	¼	1	
512	Tywardreath (cop.), St. Blazey	16	35	
2000	Union (tin), Roche & Luxillion	¼	⅛ ⅜	
1000	Ditto (paid up)	1	1	
13000	United Gefail-y-Miners (copper)	⅛	⅝	
5000	West Callington (copper)	1	⅜	
5000	West Camborne (copper, tin)	2	1¼	
1024	West Downs (cop., tin), Whitch.	2⅛	2	
1024	West Phœnix, Linkinghorne	8	11	
256	West Sharp Tor, Linkinghorne	22	49	
1056	West Stray Park, Camborne	2	6⅛	
1110	West United Hills (cop.), Illogan	5	2¼	
64	West Wheal Darlington (cop.)	45	45	
1024	West Wh. Fanny (copper) Zennor	2	2⅛	2⅛
2000	West Wheal Friendship (cop.)	2	2	
2048	West Wheal Robins	¼	⅜ ½	
2048	West Wheal Rose (lead)	2	2	
4000	West Wheal Russell, Tavistock	⅜	⅜	
1024	West Wheal Virgin, Sancreed	2	1	
3072	Weston (lead), Shropshire	⅝	1⅛	
5000	Wheal Bazely (sil.-lead), Calstock	—	⅛	
1742	Wheal Benny (cop.), Calstock	⅜	⅜	
1024	Wheal Carpenter (tin), Gwinear	⅜	⅜	
1024	Wheal Carpenter, S. Sydenham	4	6	6
1024	Wheal Catherine, Liskeard	3¼	5	
512	Wheal Constance (lead), Newlyn	3	20	
1024	Wheal Cupid (copper), Gwennap	3	7	
3000	Wheal Dora (tin, cop.), St. Cleer	3¾	4	
4096	Wheal Edward (cop.), Calstock	⅛	¾	
5000	Wheal Fanny (lead)	⅜	⅜	
2048	Wh. Fenwick (copper), Mullion	⅛	1	1
916	Wheal Fortescue (cop.), Tavist.	5⅛	¾	
2048	Wheal Fortune (lead), Landulph	¼	1	
5000	Wheal Fortune, South Tawton	1	3⅛	
1536	Wheal Gill (cop., lead), Liskeard	5⅞	5	4 4½
2048	Wheal Hamlyn, nr. Oakhampton	1⅝	¼	
1024	Wheal Hill (tin, cop.), Cornwall	¼	1	
256	Wheal Kitty (tin), St. Agnes	2	2	
6144	Wheal Maudlin, Llanlivery	1	2	
1024	Wheal Neptune, Perranuthnoe	4½	5¾	6
3000	Wheal Peru (sil.-lead), Cornwall	3	3⅛	
2048	Wheal Robins	1⅜	1¼	
4096	Wheal Sarah (copper), Sourton	⅝	⅜	
10000	Wheal Samson, St. Teath	1	4⅛	
4000	Wheal Surprise	⅝	½	
1024	Wheal Sydney, Plympton	2⅝	6	
1024	Wheal Trelusback, Stythians	6⅝	4½	
4000	Wheal Victoria (copper)	1	¾	
2048	Wheal Wrey St. Ive, Liskeard	½	1¼	

* 2l. of the 3l. carries interest at 6 per cent. from Sept. 12, 1851, payable annually.

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.
12000	Annotto Bay Min. Ass., Jamaica	1	2	
19000	Australian (cop.), S. Australia	5	⅛	
3250	Kinzigthal Min. Ass., Germany	2½	2	
12000	Liguanea & Gen. Min. Co. of Ja.	1	2½	
5000	National Brazilian (gold), Brazil	30	1⅛	
10000	Worthing (cop.), Adelaide	5	¾	¾

. Our object is to make the Share List correct: it must be obvious we cannot do so without the constant assistance of those concerned. We, therefore, earnestly call upon all who have the power, to aid us, by forwarding any alterations or corrections which may, from time to time, come under their notice. Reports from mines, notices of meetings—in fact, mining information of every description, forwarded to our office, will meet ready attention.

Transactions on the Stock Exchange.

Shares.		Paid.	Price.
100000	Agua Fria	1	1¼
100000	Anglo-Californian	½	⅝ ¾
10000	Australasian	2	2¾ 3
100000	Australian Freehold	1	⅜
50000	Ave Maria	1	⅞
72000	Baden, Grand Duchy of	1	1
100000	British Australian Gold	1	—
10000	Brazilian Imperial	24½	3¾ ⅞
11000	Do. St. John del Rey	15	27⅞ 28
12000	Cobre Copper	40	41 41¾
100000	Colonial Gold	1	1¼
210000	Carsons Creek	1	1 1⅛
70000	Engl. and Aust. Copper Smelt. Co.	5	4⅛ x d
20000	General	20	10½
50000	Golden Mountain	1	—
100000	Lake Bathurst	1	⅝
100000	Liberty	1	⅜
50000	Lond. and Cal. Gold Quartz Cr. Co.	1	⅜
200000	Nouveau Monde	1	1⅜ ⅝
150000	Port Philip	1	1⅛ ⅜
60000	Quartz Rock	1	—
7000	Santiago de Cuba	10¾	—
50000	South Australian	1	⅞
6000	Tin Croft	7	12¾ 13¼
43174	United Mexican	28¼	2½ 2¾
100000	West Mariposa	1	1 1⅛
100000	Yuba	1	1⅛

RAILWAY TRAFFIC RETURNS.

The traffic returns for the last week on the under-mentioned English lines of railway are:—

	1852.	1851.	1850.
London and North Western	£52,989	£61,177	£48,925
Lancashire and Yorkshire	21,137	19,128	17,604
London and South Western	14,556	18,053	12,977
London and Brighton	12,746	14,148	12,610
Great Western	19,607	24,052	17,066
Midland	24,069	23,651	24,262
South Eastern	18,887	20,084	16,891
York and North Midland	11,651	11,004	10,619
York, Newcastle, and Berwick	16,146	16,080	15,422
Shrewsbury and Chester	1,927	1,788	1,639
Great Northern	14,073	14,783	5,701
North Staffordshire	5,172	4,895	5,097
Chester and Holyhead	4,529	5,060	3,952
Shropshire Union	650	617	485
Exeter and Crediton	114	81	—
Bristol and Exeter	5,948	6,032	4,781
Leeds Northern	1,701	1,236	1,250
Manchester, and South Junction	731	556	382
Birkenhead, & Cheshire Junction	2,016	1,559	1,297
Manches., Sheffield, & Lincolnsh.	8,089	8,048	6,441
South Devon	3,229	2,170	2,074
Eastern Counties and Norfolk	15,721	14,795	13,206
East Anglian	705	—	—
Oxford and Worcester	735	—	—
Shrewsbury and Birmingham	855	647	701
Stockton and Hartlepool	2,416	1,830	—
Newcastle and Carlisle	2,654	2,578	2,549
East Lancashire	5,248	4,736	4,004
London and Blackwall	1,532	1,603	1,200

The aggregate results presented by these returns (taking only the corresponding lines), are as follows:—

	Aggregate amount received.	Number of miles open.	Average receipt per mile.
1852	£265,863	4,472½	£59 8 10
1851	278,480	4,273¼	65 3 4
1850	231,135	4,184¾	55 4 7

The contrast with the returns for the corresponding week of 1850, which, as already explained, is the only fair comparison that can be made, as the traffic of last year was so greatly disturbed by the Great Exhibition, is shown to be extremely favourable. Last year the returns of the Brighton and South-Western Companies was augmented by their running special trains, with a view to accommodate the large numbers of persons who went down to the Royal Yacht Squadron Regatta at Cowes, which, it will be remembered, was rendered the more interesting from the presence of a foreign competitor.

The return per mile per week is subjoined:—

	1852.	1851.	1850.
London and North Western	£98·55	£61·130	£96·26
Lancashire and Yorkshire	81·29	73·56	69·51
London and South Western	59·59	73·91	53·12
Great Western	70·78	91·10	72·93
London and Brighton	73·57	81·66	73·63
South Eastern	65·52	76·95	72·17
York and North Midland	41·76	39·44	41·47
Great Northern	49·29	61·27	24·15
Midland	48·25	47·65	49·41
Chester and Holyhead	47·80	53·40	41·70
York, Newcastle, and Berwick	53·02	54·69	53·13
Bristol and Exeter	69·55	70·45	55·90
Eastern Counties and Norfolk	48·82	45·94	41·01

The returns on Scotch lines are:

	1852.	1851.
Aberdeen	£1,861	£1,733
Glasgow and South Western	4,099	4,923
Caledonian	9,856	9,498
Edinburgh and Glasgow	4,175	4,047
Scottish Midland Junction	836	812
North British	4,516	4,509
Scottish Central	2,738	2,346
Total	£28,081	£27,868

The Irish returns are:—

	1852.	1851.
Belfast and Ballymena	£727	£713
Londonderry and Enniskillen	278	178
Cork and Bandon	181	35
Ulster	955	892
Belfast and County Down	290	291
Dundalk and Enniskillen	204	184

COAL MARKET, LONDON.

MONDAY.—Ships at market, 184; sold, 120.

WEDNESDAY.—Ships at market, 99; sold, 55.

FRIDAY.—Ships at market, 100; sold 63.

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